



SEQUENCE LISTING

<110> VLAAMS INTERUNIVERSITAIR INSTITUUT VOOR BIOTECHNOL

<120> Plant stress regulated genes

<130> FVB/Tab/V077

<140> US 10/647,625

<141> 203-08-25

<150> 01200659.9

<151> 2001-02-23

<160> 173

<170> PatentIn Ver. 2.1

<210> 1

<211> 233

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a1-1-14

<220>

<221> misc_feature

<222> (68)..(68)

<223> n can be any nucleotide

<400> 1
gtaacgaggt acagaagcat tgtattacaa tgttattcat cacatgatat taaagaggta 60
gggtttanttt tgttggacat tgaagctaaa atttctcttt aacacttaat gaaatattta 120
atttagattc aggtcacag acttgacgct gctatttttt tactcagtaa gatcatcttt 180
atctgtagtc tgtaccaata ataaaagccc aaacccttt aaccacattc atc 233

<210> 2

<211> 314

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a10-2-12

<220>

<221> misc_feature

<222> (141)..(188)

<223> n can be any nucleotide

<400> 2
aatggaagag gtcaagaaga atgtaaatgg cttttcagag accattgagg ttttgagtca 60
gcacgccaag aaatgtaacc aggatattag gatggcacga gcagtgatct tgcggaagat 120
tgtcagtc aaatgtaacc aggatattag cattggatg ttctttgatt gacagtagnt 180
gtcttgngga ttttcttttt gtttatatac catgtatgtt tgtaaaaagt tgggtccaatt 240
atgttctgtt ggtctgtgtg atttgagatt tttgaccctt gcagaaaatt aagttatagt 300
cctcattttg ttag 314

<210> 3
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-1

<220>
<223> homology with metallothionein, homeobox gene
induced

<400> 3
ggcagcggct gcgaggatg tgggatctac ccagacttgg agaagtccat acctttacca 60
tcgttgatgg tgttgctccc atgaagagct ttgaggaatt tggagagaaa gcagcagaag 120
gaggaaatgg ctgcaaatgc ggatcaaact gcacctgtga cccttgcaat tgttaagata 180
attctcttgt gattccacaa taatgtgtgt gttttctgta ataataagga taaaactaca 240
gctagccatg gaactgattg tcagttttta ggtttgtttg ttctga 286

<210> 4
<211> 286
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-12

<220>

<221> misc_feature

<222> (58)..(195)

<223> n can be any nucleotide

<400> 4
gacatcagct gttggagctc aagactttcc tcctgtttca caatatgact ataaatantt 60
gcaacttcag ctgttgagc tcaacatttg caagtgatta ttggctttga agagaactta 120
atttattggt tgtgacttgg tggcaaatta tgtgttttca agtagtaatt tgccttgtgc 180
ctctatgttt tcaantagta atttgccttc gcgagttgat tacatgagaa atcagattct 240
cagtctttgt gtagtaatta tttgggctgg tgccatcagc caagtg 286

<210> 5
<211> 278
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a10-4-15

<220>

<221> misc_feature

<222> (64)..(186)

<223> n can be any nucleotide

<400> 5

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ctacaaaaga aagggttattt atacaatatg cattgtaaaa aatcaaccgt taatacaatg 60
ggcngcataa catataatat aagattttga taacctaata accaacaaca cttatttata 120
taatatgtgg aaaagatgca tccaactatc acagatataa catccaaagg ctatacttaa 180
tttctnctaa ataacaaaca cacacttaat ccgtcactcc tcgtgtgtac aagcaatag 240
ccccaattta gttgtcatcc tctaacattc aatattcc 278

```

<210> 6
 <211> 349
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-1 ; homology with a serine
 carboxypeptidase

<220>

<221> misc_feature

<222> (19)..(19)

<223> n can be any nucleotide

```

<400> 6
gcagaaagat tttgggggng gcaccatctg gtttctttca cagtagatgg tgaggagaaa 60
ggaattcaaa agagctatgg acctctgact ttcctcaaag tcccatgatg caggtcatat 120
ggtgccaatg gaccaaccaa aggcagcact cgaaatgctc cagagggtgga ctgctcaagg 180
caaattgtcc taagaagatt atcttgctca catgtgaagc atcaatttaa gaaccacact 240
taactgaaac agattttaaca tttttccagc tttaaaattc catcaaaaca tagaaaatca 300
tgtagataca tttcaccttt tcagggtacc ctgaaatctg tcaatgaaa 349

```

<210> 7
 <211> 367
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-3

```

<400> 7
gtggaggaaa gggttcagga aggttgtcgg agtcaatgcc gccgatgccg ggaaagttaa 60
cctgagaaat gaaactgccg gaattttgac ggttggcgac atgaggaaacg ttaagtcacc 120
gttagagata acggagggtg acgacacgtg gtgggacgcg gacgccgtta caatcgagga 180
gcagtttgac ggttcaaata aaactagtca aattgaacga gtttactga ctcggtgaat 240
gaatgatcta aaaagggtaa aatcgtaaat gacaaaggcg aaatgtgaag gaacgaacac 300
tcgtccgtgt ttgtctgtaa atataattat tttcaataat tattggaaat gataatttaa 360
tatttgg 367

```

<210> 8
 <211> 389
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid a14-1-4

```

<400> 8
ggaagaagaa agagaaaggg ctgagaaaga gaaagagaaa gagaaagaag cagctgctga 60
agaagccaag attactgata aagtgaacga aaatgagaag tcggagagta atattgtcaa 120
ggaaaatcca gagggtaatg gtgttaagga aaatggtaag tcggaaaata atgttgtcaa 180
ggaaaatggg gatgttagta aaggttgatc atgaaatgat tgattaatta ggagttccac 240

```

```

ttaaactag gatccaataa ttttgaatag ttttgctgtg ttcacattgt tgactttgtt 300
attcaaacta ttcggatgga agtagtggat gtcgcaaatt acatttagta ttactacctt 360
cttgtgaaag taacattttc ataatttag 389

```

```

<210> 9
<211> 317
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-1-5 ; homology with EREBP-1

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (9)..(309)

```

```

<223> n can be any nucleotide

```

```

<400> 9
ggacatacna nacggcggag gatgcggcgt tggcgtatga caaggcggcg tatcgaattc 60
ggggatcgcg tgcagtgttg aatttcccgt tgaggggttaa ttcgggtgaa ccggaaccgg 120
ttcgggttgg ttcgaanagg tcgtcaattt cgccggagag ttcttcctcg tcgtcgtcgg 180
aaaatatttc gacaaagagg acgaagaagg ttgccnnct atacagctga gggttaattt 240
gggaatttca aaattgttca attccatgaa caggttgagt tcaatatttt atttcatttc 300
ctctcctcnt agaaatt 317

```

```

<210> 10
<211> 276
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-1-8

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (166)..(264)

```

```

<223> n can be any nucleotide

```

```

<400> 10
ctgagctagg agagcacaca gggccttagt tcaagtggaa aagggtggaag gacttgtgat 60
taagtcacgg gtttgagcta cgtgccatgc gaattaaagct tggattttaa gtggagtagg 120
gtagaggggt ggaccatta tccgagtttc gaatgctgca gttgtnccta gacagatttc 180
tcggtcctca aaataaaata aaataaatga gcttggagaa taaactccat ttttgtgaca 240
gtacaatctt ctgcataaac atantc aaa aagtgt 276

```

```

<210> 11
<211> 293
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid a18-3-2

```

```

<220>

```

<221> misc_feature

<222> (27)..(277)

<223> n can be any nucleotide

<400> 11

```
gatgtacctg aagccactgc tatggantat gttggaggta ttttatcaac aattggcnaa 60
anatgtatgc tcgattttgt attttgattc ntaaanttga taannnnngag ntgaantcga 120
ctgtattttg caagngtagt tatactttta atcttgtttc ataaaatgca tgtgtgattg 180
ttatttttagt cgatagaaaa aagaaagacc cngtatagtt tgttgatctg tgctgcagtt 240
tttgacagcc aatgctgttt tttagggttac aatatgnagt tgattttcta ttg 293
```

<210> 12

<211> 290

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-3-3 ; homology with EIF-5A (initiation factor 5A2)

<400> 12

```
ttaaagggtg atttgaggaa ggaaaggatc ttgtgttgtc tgtgatgtct gcaatgggtg 60
aagagcagat tgccgctgtt aaggacattg gtaccaagaa ctagtcgctc attctgcagc 120
ataaataatt tgcttttagcc aagacatttt atatcttaat cgtgggtactt tgatatccgt 180
tgattatgaa ctgcacttat atcctattgg catggcttga atagttgaac tttatgggtt 240
gtctggttaag acagaactgg atttgatagc agaagtgatt tatatgaatg 290
```

<210> 13

<211> 260

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a18-4-6

<220>

<221> misc_feature

<222> (36)..(172)

<223> n can be any nucleotide

<400> 13

```
tgatgatggc tgggttcact ccatccccaa ttagtngnaa cgtntatgan tngatccaga 60
attttatcaa gcnatatagt gnaaggnaca aagccaaggg gggggcaggt gcaatncatt 120
ttgggtgggg aganaagagn ntgattgttg cttnagcttg ggaatagtta cnaagtatgg 180
ttttctcata taaaccacaca atgtgcatcg aatcaacttg tattgacatc tgactttgtg 240
ataatattca gtgtttatga 260
```

<210> 14

<211> 269

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-1

<220>

<221> misc_feature

<222> (222)..(267)

<223> n can be any nucleotide

<400> 14
cgtgatatgtt ttttcgcgac ttgattagaa gcaaatacagc aatagataag ggacttgat 60
aaaagatagg tagcaaaata tactgtcctc ttcgtcctct gccttttttt tctttttaac 120
tttgatttta cagccatctc tggtaaaagt tctgatttct ctgggctcag ttttgtaaat 180
caatataaat caatataaaa acagcttgct tttctatgtt tnggttgatt tagatatgca 240
aatncttggt agagctgttt ctcttttnc 269

<210> 15

<211> 268

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-3

<400> 15
gagtaaaatt catatttgat aattatacaa ggaaattaca ttcttaaaga agtgattttg 60
atttgagttc caagatttgg tgaagttact aaacagattt tgagttccta acttgtgagc 120
aatgctggat aactcagcca ttttaatat ctagtactcc attaatttat tgtttcttaa 180
cctatgtgta tgtttttcct gccgcagcaa ctttagttga tttcagagta ttcgttttga 240
tttgctcgaa aattgaaaag gacttgcc 268

<210> 16

<211> 269

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-4

<220>

<221> misc_feature

<222> (72)..(177)

<223> n can be any nucleotide

<400> 16
caaggcagag agacttgaat aaaggggatc atgaggattg aaccttacac ggtaagatgt 60
aaaataacag tncatcacg gaattactat tcaatcctca aaatgataag ttgtncaaat 120
aaatggggat tataagatnc cttttatctt tgcggaagg ggtgattttg tatnctnggg 180
atgtgtaact gttgaataaa attgtgtgaa atccattgtt cataatgtac gaaatttcaa 240
aactattata tatgcgggac ttttaattta 269

<210> 17

<211> 265

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a19-3-9

<220>

<221> misc_feature

<222> (91)..(22)

<223> n can be any nucleotide

<400> 17

```
aataaactat gaagtcgaga tatgaatcaa actgaaacct caagtaaaaa tggactcaaa 60
actcagacgc attactaaat ggcgaagtac ntngtgtgcg caaacaatac aaacaaaaacc 120
tattgttaca cccattcgac aaatatttca accaaaaaac agaacgtgac cttaaaagtg 180
agacaacttc tgtaaacgtc cacacgcctc aatgatagan taataaagcc aaccaattcc 240
cagttcccat aacccaacc caacc 265
```

<210> 18

<211> 359

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a20-1-3

<400> 18

```
ggaataaaga ttaacataaa tgtgatcccc gaaaggtaaa tacaaggatg ccaatctcta 60
ctaakatgaa atctctaata tctattttct atgtccaacc tcgtaaagca tgaagtccaa 120
ataaggcaag ggaacatttt cattcataga aacatgcaga aaagaattta tccagagtaa 180
taaaaactat taacctaaaa cgtcataaca aaatgagcct ggaataatac cctacagcag 240
taaaacttaa cgtccaaaaa cacaacacat aaaactcaac cacatcttgt tctgctggtg 300
gagtaaagta aaaacaaaaa aactaaaagg gggggttgag ttaaggggct tcatcatta 359
```

<210> 19

<211> 399

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a3-2-2 ; homology with L12 (60S) ribosomal protein

<220>

<221> misc_feature

<222> (242)..(242)

<223> n can be any nucleotide

<400> 19

```
aagaagacca aaaacattaa gcataacggt aacatctcgc tcgatgacgt catcgagatc 60
gctaagggtga tgaagccaag atcgatggcg aaggatttga gtggaacagt gaaggagatt 120
ttgggcacgt gtgtatcagt tggttgtacg gtagatggga aggatcctaa ggatttgcag 180
caagagattg atgatggtga tgtcgagatt cctctcgatt gaatgcgaat tatcaactga 240
tngtaatat atgttaattt tatgttattt tgttttgagg atgtcatctt gaggatcatt 300
ttgatataac tatgacattc tggaaatttt tatttggaat tgtagtttgg atttgctttt 360
tctcgatgaa gtgcttttagc attgctttat gcgttttgc 399
```

<210> 20

<211> 287

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-1

<400> 20

```
gtgcaatttg cagtcactgg cgcagatcgc agagaacttg gctaaaagaa agagtaaatt 60
aacaactact cgtgactaat tctgtgtttt ttttaatttt gtacattttc tctcttttaa 120
tttaggttgg ttgttgtttt gagctgttag ttttgaatga tggatagagt atttgttatt 180
attgtagatt atgaagaccc agaactgaaa cttcatagat tggtagattt cgatgactgt 240
aaggttggtt cttggaattg ttacaacgtg actgtttgat aattctg 287
```

<210> 21

<211> 284

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-2 ; homology with
(chlorophyl)-geranyl-geranyl reductase

<400> 21

```
cagatgagta tgtgcagaag atgacatttg acagctattt gtacaagaaa gtggcaccag 60
gaaaccccat tgaagacttg aagcttgctg tgaataccat tggaagtttg gtgagagcta 120
atgcactaag aagggaaatg gacaaactca gagtataaga ggattaatag cattaatatt 180
tttcttgtaa ctgaagagtt tatttctcaa attactctgt aaacaccttt catccttcct 240
tcaataggat ttatgtaact tcatgatttg agttacattt cttc 284
```

<210> 22

<211> 287

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a8-1-4 ; homology with an early wound
inductive gene

<400> 22

```
gaacatgctg attgcagcag ttgaagaacg atatagagat gcagctctgt ggagggacaa 60
gcttactcaa ctgcggtcca aacgaaactg gatataacag gtgtgcttta gagttgtctg 120
agcaaaggac tactgtgtat atagggagtt attcatcgga gccaatgtgg tcagcatcgt 180
caaagatcaa ttgtagctct cgtttaatat gtaaaataac ttgtgaatat ctgtatagat 240
tgtaatgcta atgtaaaaca aacaggtaaa cttatggttc ttggaca 287
```

<210> 23

<211> 344

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-1-2 ; homology with epoxide hydrolase
[I]

<400> 23

```
cgttaaaagt ggaatggtga aagaatatgt gcctaactctg gaaaccatat tcttaccaga 60
aggcagtcatt tttgtacaag agcagtttcc tgaacaggtc aatcagttga ttatcacctt 120
cctcaaaaag ctcataataa aaactgcttg ccagcgacgt tgaataaagg gcaaccagtt 180
gcacgaaact cccgttatgc acaagggttg ggaggagccg gcatttggtt cttatttttc 240
agagttgaat gttgatctca gttttatcaa acaataccat atcacatttt cggcatattt 300
ctacttgat gttgatcaat aaaagggtac atgggtttac cgcc 344
```

<210> 24

<211> 255
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-3-4 ; homology with ISI10a glucosyl
transferase [I]

<400> 24
aagagagtaa tgggtgagtga agaagcagag ggattcagaa acagagctaa agcgtataag 60
gagatggcaa gaaaagctat tgaaggagga ggatcatctt acactggatt gactactttg 120
ttggaagata ttagtacata tagttttact ggtcattaag ttatgattaa aaaaaaagta 180
gttcttagta tgatttctat actgtttttg tgctttttct gtatgtgact gtgctaattt 240
aaacatttcc ttttg 255

<210> 25
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-4-1

<220>

<221> misc_feature

<222> (26)..(171)

<223> n can be any nucleotide

<400> 25
cattaacaa gaattagcgg tgggantttg gcaagaaaat tagaattgga tctaccgtgt 60
gtgcttttta gcctattgaa aatcggattg cattttgctc taggcttatg atcttgtttt 120
agcttgctcc tattggtggt tattttttan tatgttttat gtattaaagg naggattcag 180
agaataaata catattgttt atttctagtt ttgtca 216

<210> 26
<211> 212
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-5-9

<220>

<221> misc_feature

<222> (62)..(62)

<223> n can be any nucleotide

<400> 26
ataagaagaa aattacctct acaatcttta cttagaattg tggatgtaga gcaaggatgc 60
anagaccga gctaatatga atttataaat atggattggt gatctataat aagatataag 120
tttcgatact ttctgatatt ttgctataga atttggagat gaatggatc tccagaactc 180
tcattcattt gtaaaaagtt tttgattcct gg 212

<210> 27
<211> 199

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-6-11

<220>

<221> misc_feature

<222> (73)..(73)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (144)..(144)

<223> n can be any nucleotide

<400> 27
taagcagtga cggagatacc ctttacagag agtgtgtggg tgtcatctaa ctagctgctt 60
cataaaacat ctnccttgtg tatatatcta tatttaaatt attttatatg tatatataga 120
taatagctag ttatcataat atantttaaa tattgatttg agacaagaaa taaaatctca 180
aaaccaacat attctttcc 199

<210> 28
<211> 178
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-1

<220>

<221> misc_feature

<222> (26)..(152)

<223> n can be any nucleotide

<400> 28
gaaatgagag attgaatttc aatgantgca tttcaggaag agtactctgt gatgttcaaa 60
gtttgcagtg aattatcgta gtgtatttct agtggtgggt ggtncattac ctttcccaa 120
taagacattt attgtttgac atnccaattg anaaatgtca ttttgtatcg ttctcttg 178

<210> 29
<211> 196
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a9-7-10 ; homology with LOX1
(lipoxygenase) [I]

<220>

<221> misc_feature

<222> (36)..(36)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (188)..(188)

<223> n can be any nucleotide

<400> 29

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tagaacttta attcaatata aaagtattaa atccangtgt tgttattggt tctttatatt 60
cctaataata atagaaaata aaatttttta tttttatttc aagggagttc cagctacagc 120
taaaggangt aatgctgtag gctcttctgt tctgtaagta attcatttgt atcaacaagt 180
gcccagtttt aaattg 196
```

<210> 30

<211> 197

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid a9-7-11

<400> 30

```
gaagacaaga aaaactatag gacattacgt aaatattgaa tatagataga cttatgcgat 60
tgtgatgtaa gaaaccttta gaagacattg tcaaactcca gcttctctaa cttgtaagaa 120
atgatcaaga gtgaacctgg cacagtcgat ccgcaatttg ttgctgtttt gtcttcaatt 180
taacactacg ctccac 197
```

<210> 31

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-3

<400> 31

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aatcattaag gtttaaaaga aaagataaca cgtaaaaacg catccttttt acctttatcg 60
tcaaatttca aatgatgaat tacggagaaa ccgaatttgc aaactccata actctgctgc 120
tggtattctc gtctcagaga gggagagacg cacaacgaac atcaaaatag cgggagaagc 180
tcggaaaaat atgttttcat atatttatat aatttgaagt gaatttggtg tgttgaaaat 240
ttaactccct ctgtggattg ttattgaaga tataattttt tttcaatgtt cgttttctgt 300
ttcgattatt gaaagatagc aacagaaaga ttgtggctta 340
```

<210> 32

<211> 336

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c1-1-5

<400> 32

```
tgtatgatcg aggtgtaagc cctcttcctg ctgccaatgc agtagttggt ctgaggagtt 60
gacaattgat gacaggtggt gacagttgat gattttcttt cctactagat taaagtctac 120
cttcactcat gtacatgata agcatttgta cagaacagtt atggttctgt ttataaaaaa 180
agattaggtg gtcttgactt gcatttctgt gtattttgaa agtgcagact cgctctttta 240
```

cttctatgcg tggtggcttc ttgggccttc tccttcttgc tcgtgattgc ttcttataaa 300
 atttaagtaa aaatacatag cctggcattg ttcttg 336

<210> 33
 <211> 400
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-2-2

<220>

<221> misc_feature

<222> (9)..(86)

<223> n can be any nucleotide

<400> 33
 agctacgann tgnctcnagg gcnnngcaant gcgncgngng antnatngca ncnnggannt 60
 antgttnnan ctggaacnga ntccangcaa cctgtttctg tggattcttc cacgtacctt 120
 tggcttggtg atacatgtag atcgtattgc cgtcaacact taataacttg tacacgaaac 180
 agcttctgtt ttgaagtctt tcccagtcga tggctcgatag cattaatcgg ctgagatgga 240
 gcttagatcc caagagtagc tgccttttag acggtttgac ctaatcgtgt gttttgactc 300
 tattatgata ccttcattctg ctgcactaag aaattgacaa gtgcggtgaa tttcttacat 360
 gaggaattt caactggaat gccttagtat tattgtgttt 400

<210> 34
 <211> 330
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c1-3-12

<400> 34
 ggaatggatg atctgaaagc atcttaagtc taaaggaagt ttgcaactca gttgagattc 60
 atccacactg agagaaactt ctgaaacaac catacttctg ctttatcctg ttgtaccatg 120
 aatagctgta gcagcagaca atgagctttt tttaaagaca tttggtttgt aacttaaaac 180
 ggaaggaact ggattgaggc aataagtgat tctggagaat agtggtttga ctcaaattatt 240
 taatttcatt ttccagatca tgatcacctc ttgtgatttt acatgtttta ggacttcaag 300
 tgaatgtatt gttcagtaag tgttattacc 330

<210> 35
 <211> 334
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c10-3-1

<400> 35
 gagtaggatg ctggtgggat ggtcttctgt tttacagaat cctttacaga tctggtattc 60
 aagaagacca ttaggatggt taggatgtct tgagatgaag catgaattat cttacgccgg 120
 aaattttaag aactttttgc catttttcat ttacagctca acagtttata tcgattagta 180
 gatttagagc ttctctattc catattctaa tccttccaac acattatcct agtctgtcta 240
 gtattccttt tactgcattg ggcaaacttt gagctataat tgtactgggc ccaagcttca 300
 aaagaatgta tgaaatgagc cattcactcg ttga 334

<210> 36
<211> 334
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c10-3-5

<220>

<221> misc_feature

<222> (2)..(111)

<223> n can be any nucleotide

<400> 36
gnanagagng naantttggg ngganagntg ctgttgcnaa nccctanttt cccccngcca 60
antngggaaa ggaattaata aaanaagttt ggattatnga acgtnggaag naacaaaatt 120
agtaattcctt attactagtt attttcattt gttacacca ataataacta atttgcttgt 180
ttggcttcat atctggatgc tcgcttgtgt agcttattat tgcattggtt tgtatgaata 240
aaccaaggcg acgggcaact cttgactcct gtaaaaagta gacggtttct cagtgtagaa 300
gtcggagtag taccattcct gaaatcttgt cttt 334

<210> 37
<211> 216
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-2-1

<400> 37
aatatgaagg ggggtaaatc cgtaaataata attactaat caaatatcga ttacaaaatt 60
gtaagataat tgattgaaga atataccttct tttgtacata attattttca agattatata 120
aaatgaaaat tgatgtttga tcgagatgac tttccattat ttaagttgaa aatggagagt 180
ggttgtttca atataagtat tttaatctga ttttct 216

<210> 38
<211> 179
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-1

<400> 38
aagtgttaag taaaggtttc cattgcttat ccccggtata tttaccttat cattttctgg 60
ttggacatta ccgtgatagc tagaagataa tcatgttgac tgagaaatct tattttctatg 120
actgtaaaat ttgttaaaaa tgagaacgag ataagatttc ctattccgaa gcacatact 179

<210> 39
<211> 182
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c11-3-3 ; homology with caffeoyl-CoA
O-methyltransferase 3' [I]

<400> 39

```

ggaggataaa atatcatctt gtaaataaac tttactcaag ccgaatgaga caaatTTTTaa 60
gtatttggtta caatttcaga agtacaatat ttgaaataga aatataataga aatattaata 120
gcgataatag tcatgagata caaaatattt attcacaat caaaagaaaa acaaaggtag 180
tt 182

```

```

<210> 40
<211> 441
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-1-6

```

```

<220>

```

```

<221> misc_feature

```

```

<222> (242)..(242)

```

```

<223> n can be any nucleotide

```

```

<400> 40
catcggatgg aggacaaggc aagtgaaggg gacagcaaga aacctcagag cagctcgaat 60
agacagactc ccacttcaaa tccattttcca gcttcttcgc aatctcctcc aattgccaaa 120
tccacaagta ataaaagcaa aagcccgcgt cctccatctt tgccattgat atcagattca 180
acgtcgtcat cgtcgcaatc tcctcctata gttgccaat ccacaagtaa taaagttaca 240
anaccgcaac ctccatcttc gttgatatca gaatcaaatt catcttagaa ttcttgatgc 300
agaatggccg tgctttattt gattcaccag tgattctttt gctcgatgct acaaaatact 360
agtaattaac taccactcga gaagccttgc aaattttgta tacacgaatg cattcaatga 420
actgggatcg accttctttg t 441

```

```

<210> 41
<211> 340
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-2-1 ; homology with L19 ribosomal
protein

```

```

<400> 41
agggaccagg agagaggcca gttcaacctg cagctccggc tggtgcccga ccagcccaac 60
cagctcaggg atctaagaag tcaaagaagt gagcatgatg aattgtaagg aggggtgccaa 120
gcctgctttt tgttcttgct agtataacag tttagcatgt ttgatctggt cccttattgg 180
tcttttaact ttggaagaca acgttacctg tacgaatttg gaagctgggt taaagttttg 240
ataccttggt tctcagtgat accttttact catgttttga ttatatattc aacttagttg 300
ttttgcgtcg catggaatgt agtgagttag cagctatttg 340

```

```

<210> 42
<211> 184
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c13-3-13 ; homology with 23S 4.5S rRNA
genes (chl)

```

```

<400> 42
ccagagacga ggaagggcgt agtaatcgac gaaatgcttc ggggagttga aaataagcat 60
agatccggag attcccgaat agggcaacct ttcgaactgc tgctgaatcc atggacaagt 120
aatgagacaa ccattcttgct gtatattata aagcataagt aataatccat tcttatagtg 180

```

agtt

184

<210> 43
<211> 186
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c13-3-6

<400> 43
gaagacaata caacattaat cacctttgcc tctgcgactt agagacaatt gaactactgc 60
attttgcttg attttctatg ttgtatcttg agtataataa cgtcgtgagt gagtttatat 120
ttgcaaagga tatccagtc aatccatgct tgggttaaat gtatatttgc caaaaacttt 180
ctattc 186

<210> 44
<211> 549
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-1-60 ; homology with a glycolate
oxidase

<400> 44
ccttcaacaa ttcattggctc ttgaagaggt tgtgaaagct gcacaaggcc ggatccctgt 60
attcttggat ggaggtgtcc gccgtggaac tgatgtcttc aaagctttgg cacttggagc 120
ttcaggcatt tttattggaa ggccagtagt tttctcattg gctgctgaag gagaagctgg 180
aatcaaaaaa gtgttgcaaa tgttgcgcga tgagtttgag ctaactatgg cattgagcgg 240
ttgccgctca ctgaacgaga taacccgcaa ccatattgtc actgaatggg atgctccacg 300
tgctgctctt ccagcccca ggttgtgaaa atgtacctca agtgtcaa atgtttgatca 360
aagcaaagta ttgcttact gtttcagaag cttatatattt ggttttgaat acttgtttct 420
gtttaatgag tttacgaata tgttaagctt ttctcagtaa tggaaaactg ataaattctg 480
ataaatggcc agatatgcct ccatttgtac atcctctatt tctatatatc atcatattgt 540
gaacttttc 549

<210> 45
<211> 49
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-10

<400> 45
attgctatac ttttccaagt ttgataatat gaaaagacat ttctgtttg 49

<210> 46
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-2-15 ; homology with L35 (60S)
ribosomal protein

<400> 46
ggggaaaatc aaagactgag cttttggctc agttaaaagga tctgaaagca caacttgctc 60
tcctccgtgt tgctaaggctc actggcggtg ccctaacaaa ctctccaaaa ttaagggtgt 120

gaggttggtca	atagcacaag	tattgacagt	gatatcacag	aagcagaaga	cagcattgag	180
aaaagcttat	aagaacaaga	agtacttgcc	tcttgacctc	cgtcccaaga	agactagggc	240
cattcgtaaa	cgtcttacca	aacatcaggc	atctttgaag	actgaaaggg	agaagaagaa	300
agagatgtac	tttccaatta	gaaagtatgc	cattaagggtt	tgaattgatc	caacttagat	360
agtttgtgat	gtagagcaa	agctgaggat	cattatTTTT	gccattttgc	aatgttatat	420
tttgatttac	tactattatt	gcattatgaa	gttggagttt	tggtattttg	tttgccttat	480
gcgtgcaact	tttatgcatg	atcctgtcta	cacttctttt	tctacacttt	tgatcgagtg	540
tcgtgattat	tgt					553

<210> 47
 <211> 311
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c14-3-4 ; homology with L25 (60S)
 ribosomal protein

<220>
 <221> misc_feature
 <222> (49)..(49)
 <223> n can be any nucleotide
 <220>
 <221> misc_feature
 <222> (159)..(159)
 <223> n can be any nucleotide

<400> 47						
taaaaggaag	attaaggatg	ccgtgaagaa	gatgtatgac	atccagacna	agaaagtcaa	60
taccttgatt	aggcctgatg	ggactaagaa	agcatatgtg	aggttgactc	ctgactacga	120
tgcattggac	gttgccaaca	aaattggaat	catctaaant	agtagttacc	tgtttagaat	180
tttacgagaa	tttaaaatct	tggattgagt	ttttagatac	acttgaatgg	aagtgccttc	240
tatttttcat	tttgaatttt	gtgttttgga	gacatgtttt	gttccgtata	agagaaatca	300
acttttatgc	t					311

<210> 48
 <211> 272
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c14-5-1 ; rice genomic homology

<400> 48						
actgggatag	tcaaattatt	gatcatgaag	atggggccact	cgaaagggag	aagcttctgt	60
ttgcagtga	atcatattgg	acagcgccag	ctgctcaagg	atcttaaaact	acttaatccc	120
actgttttta	atctttctta	cttcaaagtc	taatcatatt	gctaatacctc	tcttttattc	180
tttcacatgt	taagttctag	tattacttgc	aaattgtaaa	ctctaggatt	ttaatgattc	240
ttcagcaact	acactgaagt	aatgagttct	gt			272

<210> 49
 <211> 270
 <212> DNA
 <213> Nicotiana tabacum

<220>
<223> plasmid c14-6-11 ; Arabidopsis genomic homology

<400> 49
ggaagattat gctggcgatc gccgatggac ttggatcatc gccgattcaa atggttcttg 60
atgatatgta ccagaatatg atcaaacaag ctgccgatct cgaagcttct aagcgtcctg 120
cctaattaat tataactggg ttccagttct ctagcaaaat aagtcctttt tttattgttt 180
caattttcag tcatgtcttg tttccatgct gtgttctcaa ttctgtaatt ttacatactt 240
atatacaaat gaaatgtagg acaactttat 270

<210> 50
<211> 193
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c14-7-4

<220>
<221> misc_feature
<222> (18)..(19)
<223> n can be any nucleotide

<400> 50
tcaccaaatt ggcttgtnna cttataatta ttgtagcat ataaaagaat aactattgtc 60
atattacatt tttccctaatt gttcaatgcc tttttagttt tcaacaaatt caatgttttt 120
tggttcactt gtttgtgaga tgattgcaaa atcatcaatg taatgcagtc tatatttgaa 180
cgaaattcat tga 193

<210> 51
<211> 203
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-2

<400> 51
aagaaatcct gaataacatt tcatttggga ggaggtatta tatagttaat ggatttgggg 60
tttttttgcc agtaaaattg tgttcaacat ttaatagaac tctgctgttg aaggggtttg 120
tttttatatg attagttact gtatttgtat tcaacagaca atattaattg aaatcaaatt 180
tctgcgtaga ccaacttctc ttt 203

<210> 52
<211> 492
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-1-4 ; homology with CBP20 (pathogen
and wound-inducible antifungal protein) [I]

<220>
<221> misc_feature
<222> (402)..(461)

<223> n can be any nucleotide

```
<400> 52
ggacctcgtg gccgaaactc ttgtggcaaa tgcttaaggg tgacaaatac aggcacagga 60
gctcagacca cagtgagaat cgtggatcaa tgcagcaatg gcggactaga cttggacgtt 120
aacgttttcc ggcagctcga cacagacgga agaggggaatc aacgtggcca ctttattgtg 180
aactacgagt ttgttaattg tgggtgacaat atgaatgttc tggatatccc agttgacaag 240
gaataagaag ctatatatgg ccatgttttag tctttgacgg cccaaataaa agtaaaaaga 300
acgatatgta aaaggaaaaa gaaaataaaag ttgctttgat ggggttaggc aattccaata 360
tctattcaag aatgtctttc gttttgggaa gaaagagtga antgtgtatt atctttgtga 420
ttttgtatgc naatattgtg atttttaaac aaanaatcnc ntgggacagt atttgttggg 480
ctccttttga ac 492
```

<210> 53
<211> 201
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-2

```
<400> 53
ggatcatgag gtctatcgag tgaaggcaca tgcgatggcg agcaaaaaaa agcttttgcc 60
catgtctaga acacaatgcg gatacatttg atggcccatc tgaaaggaac tatactgcat 120
ccaagctggt aatggccata atattttcca atatcatgac atttcttcac tgttattgga 180
taaacaagct tgagatctac t 201
```

<210> 54
<211> 199
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-11-4 ; Arabidopsis genomic homology

```
<400> 54
agttgtacac caaacttatc cataagtttg aaaccatttt atttccagtt tacatgtact 60
aaattatcgg tagatttgct tatatgtatt gtacagtagt tctaattgga aggttgatgt 120
caatatctcc agagaggaca gaatgacgaa caaactgtag gtgcgagaat attgcttcta 180
aaacataaag tttcccgtt 199
```

<210> 55
<211> 431
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-2-8 ; Arabidopsis genomic homology

```
<400> 55
gtcgcacaaa ggcttccgtg gatacaatac catgaagtac ccaatgttgg acatttgctt 60
attcatgatc gagccgtgaa ggaggttatc tggaagacat tcttggccgg agagaaagag 120
cagatagtgt attcttaaac gggaagaagg agatttagag gttcctttgt aagaagacac 180
attctgtgtc ttttactggg atatcctatt gcatacatat taatcatata taaagttcgt 240
gagctagtag ctcaagtttt ggaacttcgg tggataatgg tttgcccctc taccctaact 300
gagaaatcct ggggagacgc aagtttcgaa actcgaatga taatggattt gaccttctac 360
ccttctttaa gacggttttg tggacttga atgtgcattt cggtttataa cgttttaggt 420
gtggccttgt g 431
```

<210> 56
<211> 446
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-3-4 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (33)..(33)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (61)..(61)

<223> n can be any nucleotide

<400> 56
aagaggaaca agtcatattg atcgctagat ttngcattta ccgtgtggat aaaatcctgt 60
nggagtataa ttctacttgg gacgatgtac tgaatttcag gctctacttt gcaagtagtc 120
ttaatatccc tcatagaaca ttgcctcgaa tcttcactga tgtgtttaat gaatttgctc 180
agatgagtc gagagtttagc gtaaagtcgc agcctatctt aaatatcggt ccagtcttgg 240
gtgctgggag gtctttatcg accttggatg atatattcac gtgtgaattc atcgctagga 300
aatgttagat ctcatTTTaaa ttaggggaatt atatattaaa tgttgagaaa aagagagttt 360
tgaacttgaa caaattctta taatgttatt gccaacccaa ttgttgcaaa ttacacttag 420
ctttacagga aatgaatata tgaagt 446

<210> 57
<211> 247
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-2

<400> 57
gaaccaagta aaaggcctga aatggaaagg aaaacaagca atcacaacta gacaacttca 60
acatagaagt gctttactac agtatttaag gacaaaatca ccaaaagcta atgaaaaaac 120
tggaggtggt tgagcttcaa cactactcta ttggaaactg ttgtatgccg atactatgat 180
tgtgttttgg ataatatTTT tgtggtgcaa gttatgatgt aatatgatgt aaactattaa 240
agcgtgt 247

<210> 58
<211> 325
<212> DNA
<213> Nicotiana tabacum

<220>

<223> plasmid c15-6-3

<400> 58
accgatcaag tacctaatta gagttccaaa tgctgcttag gctttggtcc aacaagggtct 60
tgttggtcca ggcatttaac tcctttttgt ggatatcgat tctttatccg cctgtgagtg 120
gatgcttctg tttttgccat cttctggaaa gtttagttga ctgtaaaaac agctaaactg 180
taaactaaat tagcagagga aatctgcccgc cagatatttc aacatgcaag gatataatac 240

ttgtcgcagaa taaaattttc agctttctatg gccttttctg tgatactttc aggaaaacat 300
tctatcagaa aatacatagc ttctg 325

<210> 59
<211> 235
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-7-1

<400> 59
gttgatgatg tgaagctctt gagtgtcagg aaccctcgtc gattcctctg agtcatgtat 60
ttttatgtaa aacgatgaat tttcgagtta tagtatgagt aaatttggtt gtaatgaagc 120
aaaaagaatg tggggagttc tgtttctctt agcttggtta ctagtagtgt tttcatatga 180
gtatgtatta tactaatgtc taatgaaagg caaagaagta tatatatattt gattg 235

<210> 60
<211> 307
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c15-8-5

<220>

<221> misc_feature

<222> (217)..(306)

<223> n can be any nucleotide

<400> 60
taatgagcgt gacggaccaa atttagtata tagatagtac atatctttcg cattctagta 60
caatttatac ccatacaaga gtatacatit atgttactcc atacaaatga aagttaaaaa 120
agttattgaa tgtggaattc ataatcatag ggacaagcga tgtgaattct ctatgttttg 180
atgaacgact tgtatgatat gcttccttag aatacanaaa tttaaataat ttattgcnaa 240
aaaaaaaaa cntgactcan aggaatcnac gaggggttcct gacnctcaag agcttcacnt 300
cntcanc 307

<210> 61
<211> 342
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c17-3-1

<220>

<221> misc_feature

<222> (35)..(243)

<223> n can be any nucleotide

<400> 61
aagaatacaa gtactgcatg cacaagcatt ccctngggca gagcttggat gatattaaag 60
gttccttcga gtggtaaatt ggcaaaatct gctagcgtgg cctgtgtacn cctgcatctt 120
ttcccattaa caacttcctg ttgtatgtat tgtgtcnatc gtgtggatgc tcattgattt 180

gtactaatct	gtaacgaagt	gcaactttca	gagattaagg	ttttgttttc	catttcngtc	240
ccntggggtg	ttccggaaca	actatgggtg	cttgtaaatt	cctctgatct	tgacagtggg	300
ggcaatattc	ttacaaattt	atttcaattt	caaccggtta	ta		342

<210> 62
 <211> 287
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-3-5

<220>

<221> misc_feature

<222> (52)..(244)

<223> n can be any nucleotide

<400> 62	
ataatgacgt	gtcataaaaa atgtgatgtg gatgacgacg tgtcatccac antgtgcatt 60
tgaagaacac	agagggggtt aaagtagtgt gtttttaaca actacgagtg ncttgataaa 120
agcttgtgga	gtataggggc cgagatgaca aatcaggaca agtaaaggta tttattaggc 180
tattatgcct	taattattta taatttgctt aaacaatgtt tttaaaaaat atttacagct 240
attnacttgt	atatcagacc ttacatgaa tttagcttat tgttttt 287

<210> 63
 <211> 211
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-5-5

<400> 63	
attactattg	agccttagac tatgatggat atctataaga agaacaagca aagcttgggt 60
cgcttatggg	ggccttttgtg atttacattt tactctactt cgaattttca attaatgtga 120
ttatattctt	ttgattagtt tagttctata cttaacttgg gattgttgat ttactttgac 180
ctcttcactt	agtatttctca cttagttatt g 211

<210> 64
 <211> 211
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c17-5-8 ; Arabidopsis genomic homology

<400> 64	
attgaagagg	attggggaaa ttcctgctgt tgaggagttt gtttacctta aattataaga 60
actgtttgat	ttctgtctga attcgctaca aagcaaaaatt ttgatgatgt tatttgttta 120
ccagtagtag	tctagtgcag gatacaaaaa taatttggat gtgaaattag aagtgtagta 180
catttggttg	tcaatttgac aatctttttg g 211

<210> 65
 <211> 187
 <212> DNA
 <213> Nicotiana tabacum

<220>
<223> plasmid c17-6-2

<220>

<221> misc_feature

<222> (134)..(173)

<223> n can be any nucleotide

<400> 65
gatagtctat tagttaccca aacctgctcc gtatatatttg catattgtca aagtgatcctt 60
tcagggtactt cgtgattggt gtattcattc taaattttgc gatcaaaata gttcatcctt 120
agtgattgta caantaatac taaaactggc actatttngg ttggaattca cantttctca 180
cataatt 187

<210> 66
<211> 382
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c18-1-2 ; homology with DNA-J domain
containing protein

<220>

<221> misc_feature

<222> (53)..(53)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (72)..(72)

<223> n can be any nucleotide

<400> 66
cttgataaga ggatggcaaa cattcaaagc cgcacctcga gttcggaggt ttnatcccgg 60
tggtttgaac angttatgac aagaagggaa gcagcattaa ttcttggagt cagagaaagt 120
gctgtcctgg agaagataaa ggaggctcac aggagagtaa tggttgcaaa tcatccagac 180
gccggtggtg gccattatat tgcttccaaa atcaatgaag ctaaggaagt cttgttaggg 240
aaaaccaaga cagctaattc cgctttctaa ttcaccattt tgtttgcacc ttccttctta 300
acagcttaat tgtccgtata cgtgtaacaa agtgaatttg tatccgtaga catgttacta 360
tcataattta ggagacttct tt 382

<210> 67
<211> 340
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c18-2-1 ; homology with CCT (chaperonin
containing TCP-1) beta subunit

<400> 67
aatatctgag tcgttcaaag tcaaacaggc agtgttgctc tctgccactg aggctgctga 60
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aatgatccta	agggttgacg	aaatcatcac	ttgtgcccc	aggaggagag	aggggaatgta	120
aaaacaatat	tggtcatgtt	taagctgttg	agatgactcg	tatittatta	tggtttgaga	180
atttgagatg	gtaggtgtgg	gctgtaaagc	agtcaaata	tagattgcta	ttggaacat	240
gctaaagtgc	actgcgctga	gtagtttctt	ttgaggagca	aatgttttgg	tttgttttca	300
taatgtatgc	atgcttctat	agaaaacatt	tgttcgatac			340

<210> 68
 <211> 336
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-2-11

<220>

<221> misc_feature

<222> (70)..(294)

<223> n can be any nucleotide

<400> 68						
aaataagggt	gcggaagcaa	acaatccagg	acattctgct	ggatcattgg	tataccgtaa	60
tgaaggtttn	gtiantttgt	ttctgtggca	ttgttcaaat	cttttatcag	tnctccgctt	120
ctatagaggc	aaaagggaat	cctttctttc	agcatgtacc	tgtaataatt	tgtaaaaaata	180
aaagttgata	agtcattgtg	ctagctgtgt	taatagaaga	aagagatgag	agtgagattt	240
agtatatatg	ttttatctat	accttnctgt	ggtatgtagg	cttttactgc	tcancctcata	300
cctcattgac	acatctaata	aaattattcc	acttct			336

<210> 69
 <211> 338
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-3-10

<220>

<221> misc_feature

<222> (63)..(324)

<223> n can be any nucleotide

<400> 69						
caggcaacta	ataccaagcc	attagtttct	cattatgaaa	aactttacaa	agacaaaatt	60
acncanaact	acaagccaaa	aaagctcaac	atagtaactn	tgatcaaata	atcatataat	120
atttgcagcc	ttggacacac	ctcagcaaca	gaatggaach	tcaacaacac	taanaanttg	180
cacacctaata	tccaaaacaa	aaagactcga	ctccgtatca	naaantangg	tttacntgaa	240
aatgtatgat	ggtnancaac	actgaaactg	tctaachnant	ataanttcnc	nctctcaana	300
caancnttat	ctctgttcgt	tnanccgttt	ggttttat			338

<210> 70
 <211> 323
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c19-4-19 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (102)..(154)

<223> n can be any nucleotide

<400> 70

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actaagtttc tgcatttggc ttgatttctt atcaagttga gacaatattt gtcattacaa 60
ggcattttta gtaccaaaaa aacatttagca gtaactaaaa antatanctt ctgggtttggg 120
gggattcanc aatttgaaga ntctgttcga tgantttaca agctttcttg ctcctaattct 180
ccactctcat gctttcactc ttctcaatct tatcgtaaga ttccttcatt ttcagagacc 240
tcctcaattt tgtcttcaag ttcattcatta atctctcaaa tcccatcatc tccactctgt 300
atttcttctc aatttaattg cct 323
```

<210> 71

<211> 326

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-4-22

<220>

<221> misc_feature

<222> (111)..(323)

<223> n can be any nucleotide

<400> 71

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taaaggatat tgaaaagtaa atcctgcaag cacatataaa ggtatgtttc tacaaaaaca 60
taaatcgtat aggtagaaat gaaaggcggg ctgagagggg aagtgcagca nagtgatctc 120
ctgataggac ttctgaacca catnctacgt nggcttttaa gcactcaaag ccactactgg 180
agaaacagca ctctccactt gtatctcagg aatgcactat aagaaaatct antatactan 240
ctggacaata taataggtag gtatttaagt ggaaaagggt aaagggacaa gcccattatc 300
taccatgttt tgaactgcgc acncgg 326
```

<210> 72

<211> 256

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c19-5-1

<220>

<221> misc_feature

<222> (25)..(220)

<223> n can be any nucleotide

<400> 72

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atatacatct ggagcaaatc acgantttta atacaaaact caccctacaa aacatggant 60
cnccactgca tcttaggcatt ntggacagca anaaaacaag caanttgttt ggccgcctnc 120
actatttaca ttactctat tttgaatttt ttaatcaatt tgattatntt atttggttat 180
tttanttcta cacttaatct gggattgctg attcagtttn gacttcttta cttagtattc 240
```


tcacttcgtc actggc

256

<210> 73
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-5-4

<220>

<221> misc_feature

<222> (25)..(199)

<223> n can be any nucleotide

<400> 73
atttaattga ttagcggaaa atctnctttt gtttngggtt atattgcaca ttctcatgga 60
tatttttact atttgtttca tagtttaaca tcagcaagtg ctttcttatt ctgggtatatt 120
gacgccaatg tantaggctt tgacttttctt ttaaacattg ttgttggtga catctaaagg 180
ttctctaaat ttgaatttnc actcttcaat ttgcttcctt tgaatgcaat attgctcgtc 240
agctttgcat ctttgtg 257

<210> 74
<211> 242
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-6-3

<220>

<221> misc_feature

<222> (70)..(210)

<223> n can be any nucleotide

<400> 74
caaactagga tgtctgaaag actgaaagcg ttagaagtaa ataagtactc atttacagcg 60
gctgggtgtn acataccaaa acaaaacatt caacaagatt gtatccaaaa gaatacctgg 120
aaaaattaca acacttgga actgaanaac cttanctgac cccagaaaac cattaaaggt 180
aatatagcgc atctttacac gggtgtgaan atcacaaaat atcctcaatt tgttgcctaa 240
ct 242

<210> 75
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c19-7-4 ; homology with putative
translation initiation factor 2B beta sub. NIFb

<220>

<221> misc_feature

<222> (11)..(11)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (176)..(176)

<223> n can be any nucleotide

<400> 75

ataaactata	ntaccattta	gttggttgata	atacgaatga	ataaaccatt	cgacaactta	60
acttttcagt	caacaatagc	atacgtgttg	tctaataata	ccacaaagga	aaaccaccat	120
caagtagtac	tctgcatatc	cgaaatcaca	aaactccagc	acaaatctaa	tctcanaatc	180
aatctacaaa	ctccaaaaat	cgcgatgctc	tcttcatctg	tttattgcag	tcagtataat	240
gtaggtgcaa	catcttg					257

<210> 76

<211> 384

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-1-10

<400> 76

gtgcagtaaa	ctgaataggt	tgacagagct	agctgccaga	tgactcttca	tgcggtaggg	60
tttttcttat	attactgcc	tacagtattg	gagctggaga	tatcaagacc	gtgctagctc	120
tgctgattag	ttgtccgtat	agatgacagt	gatacataag	ctgacttgga	atccaagtat	180
ctggtctacc	acaattgatt	ttctttggga	tttactcaca	atattcttaa	acgatttttg	240
ccggataaat	gcaatattca	ttgattgtaa	tcaatcacta	caaggaggat	gaagaatata	300
ttcttaaatg	atttttgcca	gataaatgta	atattcatct	atatggatag	atgaattctt	360
gatcaaatgt	aagttcatgt	cgat				384

<210> 77

<211> 181

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-11-14

<400> 77

tgatgcgcat	atcaaaaacta	attattatcc	aagccaaagc	tatcctttgc	cagttgcttg	60
ataacacata	tcttttgtgc	ttgattttta	aatacatgag	gtgtatttgc	cgttgagtca	120
tattgcagcg	gtgttcaatg	taatttacac	tgatacaaaa	taaggaatt	tgtatattgt	180
g						181

<210> 78

<211> 182

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c2-11-2

<400> 78

aggaaatact	gcatacaacg	gacaacaact	cgatgcaggt	gaagaatcct	agtgtctgtaa	60
ttgctaataa	caagcacata	gtttgtctgc	tgtcttttta	ctttaatatt	ttcccccttg	120

aagttgttgg aatcgtatta attttgttag ttaaaggcgg atcaatcaat atatctttcc 180
tg 182

<210> 79
<211> 359
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-1

<400> 79
aacgggatac tgaatggtag gacggcctct tcttcgacca ctagcaacca tgtagccgac 60
caagttcaaa gatgaaacat actgtatttt gccagtggac attccttttg tgtggcttat 120
ccttataggt ttttgttcat tatctctggt attccttggc aaagtacatt atgatggcag 180
acctcttttag agagatcctc aaagtttatg tgttgtttat ttatatcatt ttttctcgat 240
agttaaatat taggggatat tcttctttcg gccatttgat tttggttgaa ggtcttgaat 300
gtcgcgaagaa atagctcagt ttaaaggagt tgatgaatgt tctctccttc tctgccgcc 359

<210> 80
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-2-3

<400> 80
agaaatatag ggtaaggctg cgtataatag attcttgtgg ttcgaccctt ccctggcacc 60
cgagcttagt gcaccgggtt gcccttttat ttcagaagat gtatattatg aactcttggg 120
ttagattgag ttcagattat tttttaagaa attatttttt agcaaagagt aagctcactc 180
tttgttctta ttagtaataa gtttgttaag ttatcctttc acaaatgata tacagtattg 240
gtgtgaggtg tgtgagggtc atattcttgt gtattaattg ttgcaatgca acgtgtaatt 300
gctcaattgg ccagattggg tttctcttct taatgctaag cactacttgt tatcat 356

<210> 81
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-4-1

<400> 81
gtggttttcg tgaatcgtga cgccaaatat cagttagcaa tggtactaa ctccatggca 60
acatactgga aatgagtgtg aaatctgaat ttcagagtgg gtgtgacttc ttcttgtata 120
gctgggtggt gttaacttgt cctagattca ctctcactct cattgggtgtg gtccctgtgc 180
tagtgacggg tcttattgtg gctcttttaga gttgatgtta tatttactct acctatctgt 240
tgaagtttat ccaattggta tacttttttt gggttgtttt aacaaagtgc tattcgaatt 300
tgtaatttca atttcgatca aaccacctta aatctgct 338

<210> 82
<211> 336
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c2-5-6

<400> 82

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gggtggcctaa tttgcagttt tgatttagtg tcatcattag ctatcttctg gattgaagtt 60
aaatgccgga aatctgtttg taacctcaat cttcaacaaa tcaattgaaa tatcacttca 120
aggcacttca ggtccttcctt gcacgggttg agagcttcca acagatttcg gagattcact 180
aggtagctgc ttggcattcg cagcccaatg cttctccctc tatcttattt tctcctattt 240
tagttctgta atagactatg tagactcttt ctgttttaaa tcggttagta gatattcatg 300
actggtgaca ccccgttgtc gggctatgtc tatttc 336

```

<210> 83
 <211> 256
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-6-5

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<400> 83
ttaaagaatg ttttgtctaa tcttgtgctg gctttaatgc acgtcaaagt ttgctgtcat 60
cccctggcaa tagcggacaa caaatctgcc agctactgat gctgatgggt atttgtttaa 120
gtggagaagt aaataggatt ttatatctaa tattattgcc ttccatagtt ctcagagtat 180
atgtgtagaa caagcacagc tgcaaatgtt tattactaat tttatgggtg aaatctgttg 240
aaagttattt tctttt 256

```

<210> 84
 <211> 254
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-7-1 ; homology with patatin 3'-strand

```

<400> 84
atgatgtcgg ttttgcattg tggaaatgca agttttactt tggcagattg ctccaagtcc 60
ttaggggggtg atggatttcc cctacaacag aattactatt tttcctttct ttttatgttg 120
ttttggctta gaaggatgat tttatttatt taacacaacc aaaagtctac ataatcctta 180
gcatatttca aatttacata gagggatatt tctattgaaa tttatccctt aacgttacaa 240
gcgcttattc tttt 254

```

<210> 85
 <211> 219
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c2-9-14

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<400> 85
gggaatacat tgggtttgtc gtttgtttgt ttggatgtta gtagaccggc aagatatcta 60
gcattttgct tctgttaaca tggacattat ggatttgtaa attcaactga ctacttgtag 120
acgtctctct ggacattcgg gttattactt ggtacaagtt aataacactt atgctctctc 180
ttattttatg ctttctgatg aatattcctt ttccctctg 219

```

<210> 86
 <211> 337
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid c20-1-4 ; homology with DNA-binding protein (pabf) [I]

<400> 86
gaagatgcg c ttagacttgg aggcagtgtg gctacctacc tctaattgtca atttgtagg 60
ttaaagcagg atttgatatt ttgttgcaca gtatgaagta tgtttttagtt ctaactgtat 120
tagcagttga tttcgtcatt tgataattac cttattctgc taatttggtt aatgacaatt 180
aagggggaga caaatcatg ctcgtgggct atatgtactg ttgtttgagt atgttgaatg 240
gatggaaatg cctttgttag atagatgtat aatgccggca ttatccctca tcaacagttg 300
cctttgcaaa tgtcgtaaaa gcatttgaat tttattg 337

<210> 87
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-2-4

<400> 87
aaagcaactc cacgttagtg ttataaaacg agtttaataa agtttgactc tgatactatg 60
tgaaagaatc taagcactaa aacaaaacct ttaggcaata gtataacatt gagatgtttc 120
ctttctaatt taaagaagga tagaagttca gtgcaactctg ctcacaagat gtagtacaag 180
gattcttgaa ccaaggattt tgatggactt catgttgaga ttggaaaact gaattcatta 240
ctggagatca ttgttcatgg ccctataaat ttgaaatttc aaagatacaa atcaaattac 300
ttatatgtgg catacaacaa gacactacta atacata 337

<210> 88
<211> 92
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-3-6

<400> 88
ggttgaccgt gcttaatata ggcagggagg ttgataatta tataaagcac atctgaatgt 60
taatccacgt aagaacttaa tttgattgct tt 92

<210> 89
<211> 257
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c3-4-1

<400> 89
gcatagactt ttttcacca tcagattagt tggcttgcca taagagacga cttcttttag 60
caaatctata tgataacctg aagaatatag taagaattaa tctgctataa ccagttaaat 120
agtactaatt acaacttttt ttttaaagtt gtttgttaaa catttttcat gccattttgt 180
ttgtcaagta ccgaaaaaac gtgggttggc tacaaaagtc ttaacctggc tagctagcta 240
cctgctactg agtatct 257

<210> 90
<211> 345
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c4-1-2

<220>

<221> misc_feature

<222> (44)..(45)

<223> n can be any nucleotide

<400> 90

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taatcaaaat tggtaaaaca atccaaacca aaaaaaacgg tttntgtgtg ctcttggttg 60
aaatatattc gaatgttcct taatacctag cgtatgtaat aataaaaatg tactcttggt 120
gctcttggtt gtattgggat tatttaatta tatttgagat ttataattta ttaaaggcta 180
atcgaatagt gttgactgat gtttggaata tgtcatcaga tatcaatgtt ggaagccatt 240
tagctcagta aaattatatt aactaaatca aaagaataaa atactatagg ttggagtaaa 300
taagttgita atggtagtgt ttttctattt agtcatttgg gatta 345
```

<210> 91

<211> 193

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c4-3-3

<400> 91

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tactcacggg gattaatctc atcacggttt caaatggaca aacaattatt ttacatggag 60
agtagagacc ctccagcttc tttttattgt tagtagtagt gtgaattctc gtgttctcaa 120
tttgatagt tatggtttct aacttatgta ttagatcatt ttaacaagca gcacagagat 180
caaattgttc act 193
```

<210> 92

<211> 340

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c5-1-2

<400> 92

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aaactagtgg tttatttgtt tcatcgtgaa tatggagcag ctgcaataat atcttcacaa 60
tagtactcat tgactagatt tgacacttcg gatgaagcca aggcattctc agagtttttg 120
attctacaat gtttccaagt tatactctgt tttaatcgtt tctgcttgta gcttaattgt 180
cttttgatgc tgtataccgt gtccaagtat gattgtagtt ttagggaatt tcagattgca 240
aggcctttat ttactcggat caaatattgta attgctagtc cccttttttt gagaaattct 300
gtatgtccca tttcttttct ccaatggaac tttcacttta 340
```

<210> 93

<211> 343

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid c6-8-13

<400> 93

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agcagaaaga caagtgtggt tctggagcca tgaaatcgcc cgagtactct gcctcctctt 60
gttctggtcc aatgcagttt tccactgggt ttgctgtggc gtaagtcttg tatggtacgc 120
aactcaaaat aataaataag gaaactgttt atacagcttt tggaaagcta acccaataag 180
atttggtcat aagtagatgg gttatgttca gttttgagca ggcaatctct ctgaatggaa 240
tgttgttcag cctgccccta ttgagaggaa gaggacttct ttttttctt aaacccatag 300
acaagttcat ctataaaaat taatcattat tctttctttc ctt 343
```

<210> 94
<211> 337
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-4

<400> 94
gataggatc agatggacct tataagtgag aaaactccta atgcaatcat ctttacttat 60
tggaatatatt tatagtgtga cagatacttg gccaaagtgt acagttatat gtactattta 120
atgaacaagt tttatggtgt ttggtatatg atgtaatttg ttacttcaga atttattctt 180
ctgagtgttt cactggttagc atgattttaca agctaattgt atccattttc tgagggatag 240
gatacagtta gattgctttt caatatctga ttgacacctt tgccctatga ttcttgtttt 300
ggaatggata caagcaagct tattgctgtt ctgattg 337

<210> 95
<211> 294
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c6-8-9

<220>

<221> misc_feature

<222> (165)..(291)

<223> n can be any nucleotide

<400> 95
atctacacga gcttcgtatg tgtaagacta ctggatcaga ttatccactg ctctgatacc 60
atattaaaat cagtgcgta atgaagcaat tgaactcgag gtatgctcca attatggaaa 120
tggaacttg gcgaagaagc cccaaattag gggcatgtgc gacannngag aagaagagaa 180
cttagaagtg aaagtctcaa ttgtattgac tatgtaatgt cgtatatatc agtggtttta 240
aaggtgtggc gtaaggctag gcattttaca catacctcag cggggcgtaa nata 294

<210> 96
<211> 338
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-2

<220>

<221> misc_feature

<222> (37)..(234)

<223> n can be any nucleotide

<400> 96
caaaggactg tgcttcatag tgggtgctggg agaggtnntg cagccactga cacatcaagc 60
accaacgagg aaaaggaatt gaaagaaaat aataaattcg atgtaggatc aaatttctat 120
ttggttgagg taattttant gaagttgata ctgcaacagg agaatgacag tcctttgaaa 180
tttnaagtta ctattaatcc aacaagagat tgcgaatatg ggaggtatga gatnatctct 240
gtttctttac cgtcctttac atctgaaggc aacttagcat aggagttctt aaatgtatca 300

aatatcaata ttttcagcag agttcatttg ttctttat

338

<210> 97
<211> 341
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-1-6

<400> 97
agtgaagggg gcaagagaag aaaaggaaaa gaagaaaatg tcagtcacaa acattcaagt 60
gtttatatgt attcaacttt tatactttct ttcaaagat ttttactttt gcagatgggt 120
gaaagaaaaa gaaaagagtt tttccaaact cgagacagaa aaagaaaaga aaaagcattc 180
ctctcttctg aatcttgatt gcgtcttttg tggttgcgga caaatgtcct gagatgggtg 240
aacttcacat ggtcgcggtg tgttggtgct tgtgataaaa tgtatttgtt atttatcatc 300
tttctactat aaatcgaaat tttattaagt tgaagtcgtt a 341

<210> 98
<211> 314
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-10

<400> 98
atagcatata tatgttgaag cccctgctcc caactcaacc ccctcctttt cttacagcca 60
ttaatatatt ttggaatagc tatttcctat tttaggaaaa aacgaccatg tattgttcat 120
tgacaagtac ttccataccc tgctcaaagc aatatgtgtt ttctcgtact tggaagttaa 180
ttttgctgtg gaacaactct tggttagctta gtggttggtg gtgagctata actcggcctg 240
tgtgatttgt tacatttggt tgagcatttt ctcttatata agaagagaca gtgaggtgtc 300
tgtctcatgg tcag 314

<210> 99
<211> 276
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid c7-3-3 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (89)..(89)

<223> n can be any nucleotide

<220>

<221> misc_feature

<222> (186)..(186)

<223> n can be any nucleotide

<400> 99
ggctgagaag aagaagcgca aagctcagtt gcaggaggcc aatcggaataa aaatgaataa 60
gagagtagag cgtaaaatgg ctgcagttnc tagggataga gcatgggcag aaagactggc 120
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agaactgaag aagctcgagg aagagaagaa ggcagccatg gcttgatggt tattgaacag 180
agtttngatc tgtaattttt ctctcttggt tttgagagtg aaaaatatat taatccctta 240
tttaataggc acaattttct tcacacaatt tttatt 276

```

```

<210> 100
<211> 418
<212> DNA
<213> Nicotiana tabacum

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```

<220>
<223> plasmid c7-3-9

```

```

<220>

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<221> misc_feature

```

```

<222> (3)..(409)

```

```

<223> n can be any nucleotide

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<400> 100
acnaatnaga antaccacgt gnantgtcnt gntacngtna taagngaaga ggttc gatcc 60
ngntcatcnc aaatgncant ggccccgtgg naagctcagc cngacaccg gantgtttgc 120
nngnggtntt attacagcta anntttattt ctccaaangn gataanagat ngttctgtga 180
nnaggntnng attgnatccg ccggaganca gaaagtnatt nttgcatcat anagtnggtn 240
agangtgact cccntntctn tgtcngnata tntntattgg ngggggntnt tttagnattc 300
cagtnattc cganatatag atcncanatt ncnatanntn tacnanngcg cccccgcncg 360
nntgtannnc atnngggaga tctcccanac gaggccggan gtagagtngg aaaatctc 418

```

```

<210> 101
<211> 244
<212> DNA
<213> Nicotiana tabacum

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```

<220>
<223> plasmid c8-1-5

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```

<400> 101
ggaatatgca taattttgtt ttcttttttg tttaaaagag ttcaacctag ttttatctgc 60
cagaagagag aaacatcaag atgtgagcat cagacaagct tataatactc tctctatata 120
gatttctaca aagcttattt ttggtgaatg cttgtgttgt gtgtaatact tcaaccccat 180
ggaaatgcta cgttttattag ctcgtgctgt ggcacccaaa tgaatcttga ttgtgtcatg 240
ttct 244

```

```

<210> 102
<211> 346
<212> DNA
<213> Nicotiana tabacum

```

```

<220>
<223> plasmid c9-1-4 ; homology with Drosophila heat
shock protein 82

```

```

<400> 102
gaagtcgagg accgtgcccc acggtcagca attacaagag taaatgcaga tgatgttcgg 60
gtcactgtat ccgcacctgc agctcgtgga gaagctaaca atgaacttat ggaattcatg 120
ggtcgagtac tgggtctgaa actatctcag atgactctcc aaagagggtg gaatagcaaa 180
tcaaagcttc ttgtagtgga ggatttgaca gctagacaag tatatgagaa actcttggaa 240
gctgccaac cttgagatgg ctccctgac cttttcttct ttgtcatttt ttccatgttt 300
gtaacattgg atttttagtt tcataaaatt gaattcagtt gtcttt 346

```

<210> 103
 <211> 360
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g10-1-1 ; Arabidopsis genomic homology

<400> 103
 gaacgagaac aaaccatctc aaaagtacat cgagatagtg actgaagata attttgaatt 60
 ttggttcatg ggctttgtac gatatgaaaa agctttcttg aattttacaaa aggctatttc 120
 catcacgaat tagctagctg ttaggcatta gaatttttag ggttttaaag aggattcata 180
 attctgtaat tgttcttttt tctttattaa atgttgaact ggtagcatct aatctatgct 240
 tgttcatcat tttcttttct ctcaacggaa gaggatttga gattttatgag aattgaattt 300
 tgtagattct gaaatttaac gaatttctca acatatatat aagatttaga ccaaggttac 360

<210> 104
 <211> 556
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-21 ; Arabidopsis genomic
 ABA-regulated gene cluster homology

<400> 104
 ggtgggattt gactatgcat atcgcaaagc aatgaattcg actatgaaat tcatcacaag 60
 ctcaaagaac aaggcgtata ctttttttag aacgactacc cccgatcact ttgagaatgg 120
 tgaatggaat acgggagggt attgtaatag aacaggaccc ttcaaacaag atgaggttga 180
 cattggttat gtagatgagg tgatgcgcaa aattgaatta gaagaattcg agagtataatc 240
 gagaacagaa tctgcagaca gggttgacaat gaaattgttc gataccactt tcttttcgct 300
 gctgagacca gatgggcacc ctggagtcta caggcaatat cagccatttg ctaaagaaaa 360
 tatgaacaaa aagattcaga atgattgtct acattgggtg ttgcccggcc caatagattc 420
 gtggaacgat gtaatgatgg aaatgttgtt caccagttga aaatgggtgtg acattagatt 480
 ttgattttgc tcccacaatt gtattgttca tctgcaaaag atgggtgcac actatttttc 540
 accattgttt cctctc 556

<210> 105
 <211> 579
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g12-1-5 ; Arabidopsis membrane related
 protein CP5 homology

<400> 105
 tattattcaa gttggtatat tggagaagtg gaatcaagta gaggtaacag ccagccgacg 60
 cgatgtgaag tgattctatt ccatcatgaa gatatgggca tcccatggga aattgcaaaa 120
 tttggggtaa agcaaggatg gtggggagct gtgaggaaga ttgagcgggg attccgtgcc 180
 taccagaaaag ctaaagcatc tggcttgaaa atatctcatt gtgcttttat ggctagagtt 240
 aatacaaaaa ttgatcgaga atacttgaag tcaatggaag atgatgagga ctcatctgaa 300
 actgaattgc aagcttcacc tgcaaaacct gagggcatga acataccaaa gctgattatc 360
 attggtggag ctgtggcagt tgcttgtacc cttaatcaag gaatcttacc caagggtgctt 420
 ttgtttaatg ctgtgaaaag gtttggaagt ataggaagga gagcatgtcc aaggacatga 480
 catttgattc atgcgtgcat tgcgcatttg ttttttcctt gttaagcat tcacttttaa 540
 gctctttata tattttaaac aagcaagtgt tattttgtc 579

<210> 106
 <211> 358

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-2-4 ; homology with vetaspiradiene
synthase PVS4 (sesquiterpene cyclase)

<400> 106
gatagcatgg aaggatgtga atgaaggaat tcttcgacca actcctgttt ctacagaaat 60
tctcactcgt attctcaatc tcgctcgtat tatagatgtc acttacaagc acaatcaaga 120
tggatacact catccagaaa aggttctaaa acctcacatc atcgctttac tggaggactc 180
cattgaaatc taaaccattg agtgcttttt tcatctcggg gatcgtttta tttttatttt 240
taaataaagg atcagaactg tgtttctgtg ttcctcttta tataagcaag ttgagtttcc 300
tacttctgtt caaacctgtt gtttgttctt ggcgtctgaa taataataatt ttgtttgc 358

<210> 107
<211> 264
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-10

<220>

<221> misc_feature

<222> (219)..(220)

<223> n can be any nucleotide

<400> 107
caaagataaa gaaggctgga gttgtaagac aggagcttgc taagcttaag aaggacgctg 60
cttaagaact ctttgattag tgagatttgt atgataggag ttttggaagt cgttggtgtt 120
tgcttttaga ttttggttca ttactggcaa gtcatttggg ttcattctttg gtgtcattga 180
agactcctag aaatcaattt cccaatagtt ttcatttgnn ttatgatggt gaacattctc 240
ttcgagaca cttcattttg ttgc 264

<210> 108
<211> 211
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-22 ; homology with orf 03 A.
thaliana

<400> 108
cttccatcaa gcagggactg gttgggggac tttatggtgt ggaaaccagc agttggtatg 60
gagaatagcc aatcattctg ggcaatttta acaatatgga tagcttttgg tggagctgca 120
ctctttttgc aaaagtgaat catatacaag taaagctggt tattgtctag ctttctattc 180
tttattggta tatatagtct gatgtgtatt g 211

<210> 109
<211> 262
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-3 ; homology with sequence 161 from
patent EP0953640

<400> 109
acattataat aggatgtaaa gaatgaagca ggaagcagtt tcttactaga acttctacta 60
taattgtgga tttatatattgg gttgttcatt cagaaagctt tgccaagtaa cttagaatta 120
gtgtttacat tttgatgtct ttgttttgat attactaaga agaaaagata ttgggggaaa 180
aagaaagcca gaccactgaa tggcagggtct gatatgaaaa ctggccatgt atagaaggat 240
atttcgttta tttcattttt tg 262

<210> 110
<211> 265
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-4

<400> 110
gcttcaagtg gatgatgatg atattaaggc catgattaaa ttggggccgtg gtgatgaaaa 60
tggtgggtgg gtcacctttg aaggttttct ccaaattttg tctctttgat ttgttgcttt 120
gatgacgatg ataaatgtca gattaggtga acaagttttg gtttactttg tatttttcaa 180
tgatttgttt tactgtgctg cttcatatgc tattggctat tccgagaatt ctatttgaaa 240
acaaagaaga aaaagagttg ttccg 265

<210> 111
<211> 260
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g14-3-7

<400> 111
atgaagaaga agagggcggt ggtgatgact acattgagtt tgaggatgaa gacattgaca 60
aaatctaaat ctgaacgcaa agctgctggt actgagggtcc gttataggcc tttctaattg 120
ttttgtggag ctttttccat aaacattgag agtgtatctt gtgtatcgtt tgaagttatg 180
tatcaaactt tgtgcattgt gagttttgta ttagattttat gcttccatga aatgaatgca 240
atattctagc tgggtgtctac 260

<210> 112
<211> 469
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g15-1-37 ; Arabidopsis genomic homology

<400> 112
atatttcttg aaacatctca acttgcattc tccccacttc gtcaagatct accgccaagt 60
gtcatactgc accatcttta ctcacgcggg cctgaagaac tacaatcacc attgcaaaga 120
aatagactta ctccgacgca gtattcactc tggatggatt cacaagggga ggaccaaata 180
tggaagagta ttaaagctac tctggacgac tatgtctgta aggtacggtc aagaggggac 240
aaggaattta gtcctgtcta tcctttgatg ctagaatcgc gctcttcttt atctgggaat 300
cgtttagagga gctttgagag aatgcaaagc tcaaatactc ttctcttggt atatgccctt 360
ccccatattt ttgtttcaat aatattgtca cagatgaaca catagcagac cgttatctat 420
gttttcgtta gtgtcttact ttctttatat attttacctc aattgattg 469

<210> 113
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
 <223> plasmid g15-2-2 ;homology with ubiquitin [I] able
 to induce HR-like lesions

<400> 113
 gttgatgtcg ttgtgtcgtg ttgattgact gtgtctgttt ctggttgtgg tcgtgatgtg 60
 ctttgtctac tgaggctca aagatgttct atgctatctt tgtttgctgt ttctcttatg 120
 ttctctgttg tgaataaaga ttccgaattc tgcctaaaaa aaaaaaaaaat gaagtttatg 180
 tatattggaa gaagcatttg tgtcgtcacc aagtcccat tgaatatatg ctgtgttttt 240
 gcttggctaa tttgtgttta aactttcttt ctatctgtgc tcaatatact cctgaacaga 300
 ctgatgtacg attttaaagc tatgtatgta taaactctct tatcttttgc 350

<210> 114
 <211> 345
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-3-11 ; homology with sequence 7 form
 patent EP0953640 [I]

<400> 114
 gtggatgaag ttaaggtgac ccctgttgct tagaagtaca cagagctttt gtaatgggtca 60
 atagagtttt ttgcaatgct aatttcatac ttattaagct accactgtga ggcaattgct 120
 gtattttacc tatgtgattg ctttaaaacta tgaattagat gcctgctgtg agacttgtgt 180
 actattgctt ttaaggaagt gtggatctag ttgaacttcc tctcctttac tatgtgcact 240
 ttgatcttga ttcttagata gtcaagaagt aatatataaa attgtactac tatatttcaa 300
 atttttcatg tttcttgaag gatgaaatat aaatgagtta gtacc 345

<210> 115
 <211> 344
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-3-7 ; Arabidopsis genomic homology

<400> 115
 gatacatgga atgagttagt gtttgatctc atagggagag acttccagag tagacagagc 60
 aatgcttcat aagaagaagg atccttaatg ctaaaaaaca ttttttgtgc ttctacagca 120
 cagctacggg aagattatct atctctctcg aatggagttt agcttttttag ttactttaga 180
 tctcttggtg tagctggtgt tgtaatctat gtttagatat ccacggtaag ataattccta 240
 agttacacga aattttcaca ggtctcaagt atgtgtgcag ggatatttaa ctaaatacaa 300
 acgttttctt tgcaataaaa tatttcatct gatttttccc tcgc 344

<210> 116
 <211> 301
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g15-4-1

<400> 116
 tgaatgttta atgttagaaa gtgaattact ctctttatgt ggtgtctgaa catatgttca 60
 acattactct tcaaattacc aataattaat agtgcgacaa gttatagggt ataggttgat 120
 gaaaaattgt ttccatcttg taaattatag tgctaaattt atcacacatc tgtgtgcacc 180
 tatattatag tttctgcttt cattgaaaat gagtttcaag ttttctagtg gaattggata 240
 tgtagtatag aagttggagg gttgcttttc attcttttga aagggtaaaag caaacttaag 300
 c 301

<210> 117
 <211> 525
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g17-2-13 ; homology with wrky (zinc finger
 DNA binding protein)

<220>

<221> misc_feature

<222> (466)..(521)

<223> n can be any nucleotide

<400> 117
 aagtggatat tttggatgat gggttatagat ggaggaaata cggacagaag gctgtcaaga 60
 acaacagatt cccaagaagc tactaccgat gcacgcatca aggatgtaac gtgaagaaac 120
 aagtacaaag gctgtcaaag gatgaaggag tagtagtaac tacttatgaa ggcatgcatt 180
 cacatcccat tgagaagtcc acagataact ttgagcacat ttgactcag atgcaaactt 240
 atgcttcctt ttgaaacgtc catcacttca atgcctaagg catgacactc aattagtcac 300
 ttgtaaaata gtactacagt atattgtgta catgcgtttt gaacctagat gctatatattt 360
 gaaataaaac gcaacttcat tagggaattt aatttgatca ttgtacaact aaaagtaatg 420
 ttgtctatttt ttgtttttta tcactttgtt ttggccggag ccatgncttc attttaactc 480
 tttcttttag aattaacaaa taattncatg ttggagaaga ncgtg 525

<210> 118
 <211> 225
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid g17-3-2

<400> 118
 gaccaaata gcaaatgaa gaaatgctgg agatcaccac atacttccag gcaaagcaac 60
 ctcaattttt gttacaaaa gatttcttga ttaaactttt gaaagtaaac acgtgtgtgt 120
 agagaagtaa atgcaggcac tgggatttca atatcgtttc attgatgctg gtacagtagg 180
 agattgaaac taaacatttt cttgaagttc agtacgtgtt cattg 225

<210> 119
 <211> 412
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid g18-4-7 ; homology with L18 (60S)
 ribosomal protein

<400> 119
 attgagaagg ctggaggaga atgcttgacc tttgatcagc ttgctcttag agcccccttc 60
 gggcagaaca cggtagtctt taggggtcca aagaactcgc ggggaagctgt taaacacttt 120
 ggtagagctc ctggtgtccc acacagccac acgaagcctt atgttcgggc aaaggggaagg 180
 aagtttgagc gagcaagagg gaaaagaaag agcagagggt tcaaggtttg aggaattgag 240
 agtgtttgag tgcacgatga gagaatttct tttagaaggt tttccctacc tactttttac 300
 catattagct tctttttctt gtcgaatttc ttatttcacc cctgtttctg tgacactcca 360
 acctatagcc gattttgaat gcttttatta tctattctac gaaattaagc tg 412

<210> 120
 <211> 373
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g18-5-1

<220>

<400> 120
 acattatcaa gacgaaggca ataagtgggc ttactcattc ttactgaaaa acgggggctgt 60
 gaaatttggt gtaatcttca agaattgtact tgttgccatc aatagaaaag caaacaatat 120
 tgtgttcagt tacagccttg ttgggtcttg ctgagagtta tttttctagt tcctgaaagt 180
 tatcttgcaa gctatcatgt agctgtgtgg taattttcac aggtttgagc tacagttgaa 240
 gccagtaaca tgtgttgata ttatagctaa aataactaat gcttacctgc agtttccgtt 300
 tgtgtggaat aaggagaaga attgatgtgt aagcatggct tctgtgagtt gactctatta 360
 tctattgcat tac 373

<210> 121
 <211> 390
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g18-5-12 ; homology with
 capsanthin/capsorubin synthase, promoter region

<400> 121
 ggttgcaagg gtgtatccga accctatttg cagaaaaatt atactgtata tacaagggtca 60
 aaattatattt ttctgtttat atagtttagat gttaaattgt cttggctttt tcgtgtattt 120
 atttctttat attttgaatc ttcttggtga aaatcctagc tctgtacaca caaagagccg 180
 acatgctgat ctctctctct ctctggacgg agagtcttct gaagtgattt tgtgcttctt 240
 cagtgtgttt atagatcaat ttagtgtctt tgtcaaatgg atttctaagt gaaaaaagag 300
 aaaaagtatt tcaatgcgtg tgacctacct tgcataaact ctgcatgatg gatatacaat 360
 gtttctgctt gatatatgta tatgttttgg 390

<210> 122
 <211> 381
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g18-6-12

<400> 122
 tcttgacgca ggctggttat acaaggggact catggttgct tctgaatgac ttcattaaga 60
 tcctggacca ccctggtttg aagatggagg tagaagtacc aattgactag ttacacctgc 120
 aatttcattt actataattc agatgtatct gtgtacaagg cagccgtgtt attctgtttt 180
 gttgaattcg cgcacctgca ttctcctgct gttttttgtt aaatctcttt ctttttcctt 240
 cttttgcccc cgttttatgt ctgtttgccg ggcagggaca gaaacagaga aaccgccgtg 300
 taattaagat aaaagctttc agcttattca gaagatcttg aatatgctat aattttaatc 360
 tctcacaac tgtgtatctt t 381

<210> 123
 <211> 356
 <212> DNA
 <213> Nicotiana tabacum

<220>

<223> plasmid g18-6-5

<400> 123

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ttagagaaaa agagagagga aaatcgtaga aaaatcttca aaaaactgag ttgagtaaaa 60
tttcaaaaaa ttttagttgt catttctctt ctggtctttc ctttccagtc gatctcttct 120
tcagaaaaaca aaaaaaaatg gttcaacttt agttttgagt ccagatttga tctcatttct 180
ttgctagagt ttcgtttgct gttatttgct gggtttttgc tttacccgtg gctgaacttc 240
cttcattctt atttctgctc tctaccagct atttcgagct ttatttgta agtattctag 300
gtacacactt tcaaattctgt actgtttctt catgaaaagg gctgaaaatt ttgaat 356
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<210> 124

<211> 293

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-7-5 ; Arabidopsis genomic homology

<400> 124

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aagaaaagta gcaccagggg cttgtccttg ttgtggagga aaagtacaag ctgtagatgt 60
agaaggccgt ttcagatttt gctttctccc tatttgcttt aggttcaaga ggaagtatct 120
ctgtactctc tgttctaagc gtttggtttt gtattcttga tctccctatt ttcctcttgt 180
aattttctact ctcaattttt tgaacagcat cctataagtg taattattta tttgaaatag 240
tgtttgagag ttgttcattt gctcaagaat atatgaaact tttgtagttg tgc 293
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<210> 125

<211> 259

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g18-8-7

<220>

<221> misc_feature

<222> (104)..(104)

<223> n can be any nucleotide

<400> 125

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tgaagatgta gataaattgc tggaagatat aggggatgat gttggtgctg atgatggtga 60
cgatgaaaac tagaatgatg ttttttttct caagtaaatt tatntcattg tatttcttgt 120
tagtttttct cttctccact cccctctggt tttctgtggc gcatagggtg tacattgtaa 180
aaatttccca ataccaacat aatttaagga tgtaaaccat cttcttgctt tgcttgtaat 240
ttctctacta gggtgcttt 259
```

<210> 126

<211> 491

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-5 ; Arabidopsis genomic homology

<220>

<221> misc_feature

<222> (485)..(485)

<223> n can be any nucleotide

<400> 126

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ggttttaata agcttattgg tggttggttg ttcgagtttt ttggttactt taggagaggc 60
aagtggtagg tggacgagtt ttgggggttat atttcaaagt gtagtgagtt caggatttgc 120
aactctgtta atgcttcaga gtcttgctgt gaacgtgggtg ttgtatatgt attgcaaggc 180
atatcgtggg gagctggcgt ttgagatcgc ggaggagttt gcgagtcagt atgtgtgttt 240
gccttttgat aatgagaagg ttcctcatct tgtttgtgtt gttcaagatt gaatgtgcct 300
aaggtcagtg agattatgtt aggatgatgc agttagtagt ttgaagaagt agtgttttgt 360
tttactcgtg gcatgtatat agtttcttgt ttgttagata aatgattgaa gatgtgtgtt 420
acctgttggc aatgtgcacg tttatatgta aaaaaagctt aataacctgt atgaaattcc 480
ctccnagttt t
```

<210> 127

<211> 485

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-6

<220>

<221> misc_feature

<222> (467)..(467)

<223> n can be any nucleotide

<400> 127

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taggaaatga cttttgcagg agttaaatca tataaatatt tttttggact gcaaataatg 60
ataatttttc tttttctaac caaagcaaaa taatatcatt tgtgaaattc agtcggtgta 120
cctgaacatt attagtatta aaatggagaa atgagagAAC acgtatggcc actagagata 180
ttaaagctac ctaaatatga caatagatga agcagaggac agtataatat aattttcttt 240
taactataac atacattgcc ccctttatag atcaaagttt ttctactatt atttaattta 300
ttactataat aatcatctct ctctaggcgg ctagtggga ctatgctcaa cttgcaatat 360
ttaattttgt tttcatgttg ttcctttttc tggatgatgt ttttaactgtc gaaaaaattg 420
agagctaagt tgcatggttc tgagttcgaa ggattaaaag caatgtnaat caattggctc 480
tatgc
```

<210> 128

<211> 484

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid g19-1-7 ; Arabidopsis genomic homology

<400> 128

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ggaggaaga tctaggaatt tttccgagtt tgaacaattc ttggttgatc gtttctaccg 60
tcaatgaagg cagaaacagc ggttttgaat ccacctctca tctcttttga caacaagagg 120
gatgcttatg gatttgctgt acgacctcag catgtacaaa gataccgtga atatgctaata 180
atctacaagg aagaagagga agagaggtct gataggtgga acgatttttt ggagcgtcaa 240
gcagagtctg ctcaattacc cataaatggg atatctgcag acaaaagttc tactaatcct 300
ggtgccaaac catttagtca ggaggttaagt tgtgatgcac agaacgggga agaaggtcaa 360
cttgaaaatg caactgagaa ggatgtcata ctgacctctg tggagaggaa aatttgtcag 420
actcagatgt ggacggaaat tagaccctct ctacaggcag ttgaggatat gatgaacact 480
cgtg
```

<210> 129

<211> 224
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g19-2-1

<400> 129
tttttttttt ttgggtggcg gaggaaagcg tgtggaaaaa aagaaagaaa aaagagaacc 60
atagagttaa aggccagatc atgtctgcta tgagtcacat tctgttggtg gaagagaatt 120
cacttgttta attttacttc tcatatttta tatcatggga tttcatgttg gatggatgga 180
ccagtgtgta tgtcaaatta attcttattg cgaaaaaaaa aaaa 224

<210> 130
<211> 198
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g19-2-9

<400> 130
ccagtgtaat tggactttgc gcaattgaga gacaaggggt tagaggtata tacgtgattg 60
aagatcgtga tctatcttgt tatctctcat ttttttgaga tttttctctt cttctttttc 120
cccaaactcg taattgatga gattctagac agtggttagtg tataatcact agataatcta 180
tgtataatca gtttatcc 198

<210> 131
<211> 204
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g2-1-2 ; homology with 5-epi-aristolochene
synthase (sesquiterpene cyclase) [I]

<400> 131
ggactccatc gaagtttgag ctgccaattg ttgctcatct taaagaaact tcattcttct 60
gtgttgagaa agtagttata tatgtttttt taaattgtat aattaagttg ttagggaagct 120
ggttttgcga ttgtgcagtg gacttcctaa ctaggacctc cttgtaagaa gtaatcttca 180
agtgttatga attcacttgc attg 204

<210> 132
<211> 313
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-20 ; Arabidopsis genomic homology

<400> 132
tgcgagaaag accaagaaat ttgtattaga gcaaaaaatg gtgcttggggt gatttcgcgg 60
gtgacacgag ggaaggagct ctatatggta cttgagaaag ccaatgagac ctttctttat 120
gcctctgaag ctgttgaaaa gttcagtgac aggtattgca gtggcgcttt ttctttgtaa 180
gagggaaact agatttttgt attgccgaga cacaggattc atacaaaaga catagctaca 240
tatcttatgt tgttgtaaat tcaactttgt ttgtactggt tataaataaa taaaaacttg 300
atcctctcct ctt 313

<210> 133
<211> 315

<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-29

<400> 133
ttgcaatgaa ctttgtaact aagggtgggct ataaagaagg tttgggaact tcttatatatt 60
agttgtttac gagacaaatt cgtgctttcc tggtttatca agaaaagaat tgggtcaactt 120
aatgaagcat gtctccacac tgatctatct attctgattt ccagtgtaac agctttttttg 180
gccattacag tggttatttg atgatcacta gcattatcat atctagtaaa gtaaacacgt 240
caagtcaatt gatccattca actgtaacta tgctgaattt tacttatgga aaattcggaa 300
aatactattt acttc 315

<210> 134
<211> 315
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g20-2-31

<400> 134
agaatatagc tactacaagg tggttctccc agtagatcaa ctcaaagcca ttactccgctc 60
aactatgctg tcaagaattt gcaagggtgca ttgctgggtc atcattcgtg gctagcgtgt 120
cattttcttg gtcatctcag atgagggtccg tgacactggg gcttgctttt gttgtagata 180
aaattctgta aagtatgcac atctgggtga ttgattgttg catacatgct aatttatcag 240
cggtttggtg tcttggtgac atctgtttcc tgaatttttt attatctttt agtattactt 300
tggttgggtc gattg 315

<210> 135
<211> 483
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-1 ; Arabidopsis genomic homology

<400> 135
attttgagac cagaagggaa gctcattgtc cgtgacaaag tggaagctgt aaccgaatta 60
gaaagcatgt tcaagtctat gcattatgaa atccgtatga cctattcaaa ggacaaggaa 120
ggattgttgt gtgtgcagaa aacaatgttg cgaccaacgg aggttgagac actaactaat 180
gcccttgctt agctgcttag cgtgtgtgct gatgctgggt gtatatcatt cgagaggctt 240
tcatgccacg gtgactagat agtttttcga ttaaattcct gttactgtat tcttgtcagg 300
ctaccgtgta ccattccata gcaaaattag tgctattatc actatatatt tgtggaaagt 360
aagttttgta atattatgtc attagttgtg gaggaggtgg acattcttgg aattgtaaat 420
gccattgggt taggacgggt gtaaaaattc aaaaacacca gaatgaaatt cgttttcaga 480
gcg 483

<210> 136
<211> 553
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g3-1-4 ; homology with ADP-ribosylation factor

<400> 136
atagcaatga cagagaccgt gttgtggagg caagagatga attgcacagg atgttgaacg 60
aggatgagct tcgggatgct gtgctgcttg tgtttgctaa caaacaagat cttcctaatt 120

caatgaatgc	tgctgaaata	actgataagc	ttggactcca	ctctctcagg	cagcgctcact	180
ggtacatcca	gagcacttgt	gcaacttctg	gagagggact	ttatgagggg	cttgattggc	240
tttctaaca	tattgctaac	aaggcctaaa	ccaacgtaga	gttggtgcgg	gttgatcctg	300
gatgcaggcg	ggttttttatc	tagttctttt	tccttttttt	cccgaacatt	cccagaatct	360
gtgtggttat	gaatatccct	tgaaagtgat	ttgcttcttg	gtaggaccta	ttgaaatggt	420
tttgtaatac	agtgggttga	tatatgtaat	tgtttggtta	gtttaaagta	taatgctata	480
atttgtaaca	gagattagat	gtttgatgtt	tcattggtaa	atggtaatgg	tatacttccc	540
tgtttgttcc	ttc					553

<210> 137
 <211> 501
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-2-13 ; homology with ACC oxidase

<400> 137	
gagctctggt	aattaacatt
gtattgagca	tcgagttatg
tgaaccctaa	gcctagtgat
aaccaattta	caaacaagtt
atgatgggaa	agacactggt
aagaataaga	agtgcgctta
cgactactca	gcaattttaa
atatttttgg	gattaattag
tgatattatg	gcaaatatag
c	

<210> 138
 <211> 373
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-3-7 ; homology with ATP citrate lyase

<400> 138	
aaatagtaga	gatcggttac
tcgggacac	atttgatcag
atgttctcta	caccaagtga
ctatccagca	ttttatcgaa
tttctgctag	tattttgtac
agacaactct	tttagtttca
acacattcat	tgt

<210> 139
 <211> 301
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g6-4-4

<400> 139	
gttgggggaa	aaggcaaaaa
gcatctgcta	aagaacattc
atttctcttt	cgtccaaaca
atttcattct	tgtgttcttg
tgcattgtca	cagtgtgaag
g	

<210> 140
<211> 299
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g6-4-5

<400> 140
aggttataga tgaaagacca atggcttttag taactgatgc tgttgccaat gaagccaaag 60
ataaaggctc aagctagaaa ttgcagtaat actgatttta ttgctgtctt ctttaacatt 120
accatcacta actagtcttc ctttttctt actggtgtat ttactttcaa gtattttatt 180
tgatgaggcg atatctcatt acttttggtt ttccagttgt ttgctttagt gaatttatat 240
gctggaagga tttgaggtat tagatagaaa gcactctctg atttaacttc aattatgtg 299

<210> 141
<211> 356
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-1 ; homology with a A. thaliana gene
homologous to MEI2 (meiotic regulator)

<400> 141
cagtggagga ctcgaaatgg aacctgatga tcaaaataat ttgcttaatg gtattgcaaa 60
cttaagcatg tcttatagtt atccaaatgg tgctgcaact gttgtcgggg aacacccata 120
tggagagcat ccgtcaagga cattattcgt tcgaaatatt aacagcaacg tagaggactc 180
agagttgaaa tcgctctttg aagtagtgct taacttacca gtttctttta atttgcctct 240
gttaatttagc tatccttttt cgtacttcct ttattgcagt tgaaatgctt gtttctcatt 300
ttgtttgtgc aagagatatt ttcttttgga cgacttcata tgcttgaaca ttgttc 356

<210> 142
<211> 350
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g7-1-4

<400> 142
gctggtgatc aaggcttttg agatatcaaa gataaaatta tgataatgaa tttcaagaat 60
tccaatggcc agaatttgtc aaagaattca gatttatgga atttggaaga gtgaagaaga 120
gggaaagatt ggaaaacatc tttattgatc acttctgcaa acaacaacga gttagaggctg 180
atttagaatt taaagtttaa gagtttttat aaatttagag ttaaattatt gtatatattt 240
aatgaattgt ttaatatata tacaatatcg tcaatagggt attatacaaa tgataagttt 300
ttgtagggag tgtaaaggaa aaagttttga aaaagaggag gatttgtttc 350

<210> 143
<211> 481
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-2-2 ; homology with P glycoprotein-MDRP
(ATP binding cassette protein)

<400> 143
gcgagggcca tagtgaaaaa tccgaaaatc ctactattgg atgaggcgac gagcgcattg 60
gatgcagaat cagagagatt agttcaagat gcacttgacc gggatgatgg aaatcgtaca 120

```

accgtggtgg tagcacatag attatcaacc attaaaggag cagatgtaat tgctgtagtc 180
aaaaatggag tgatcgtgga gaaagggaag catgagactc ttatcaacat caaagatggg 240
ttttatgcct ctttggtggc cctccacacg cgtgcttctt agttctactt ttttttcatt 300
aagtaaattg tattcatttt aatttcgtta tctttttgac ttttgctgaa gaagagtttc 360
tttaatagtg tactgcaact catataaagc atagtatagt agcattcttc aattaccaa 420
tgagagaagc aagtaaactt gcctccccga cttgacttga tgtgttctgg ttattaagtt 480
c

```

<210> 144
 <211> 480
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-2-6

```

<400> 144
agcaggacta gtcaagttgc atcttcacat tagaaatgct tgtatatatg tgtatcagcc 60
tatcaggtag atgtgctaga aagtttttag gagcagatac aaccctggaa acctgtacag 120
cttcttacgt cccttttata cctgtactat aagtaggtag gtggtggcct gaaatcccat 180
aagccaaaaa aaatatacaa gtaagcttca ccatgctcca ttacttagaa actgtacagc 240
ttgtgattta ccaaataatgt ctacattagt cctaataatt ccttagatat acgtagccta 300
agtattaagt caaacctgag tttttcgaag ggaaactttt tgtagcaatt cccttgatgt 360
tgttgactaa cttctcagca gttgcaagtg aatttcattt attgtttgct attttcctgc 420
tgcgtatgtt ctctcttaaa attgtaaaat gtttctgttt gtttcacacc agcttcatcc 480

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<210> 145
 <211> 447
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-3-17

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<400> 145
tggggacagc aaaacctcct tggttgtgcc agtgcaaaga ttcaagtgtg acattaaaca 60
gggaacatgc tcaggggaaag ctgaagatcg tagatgtctg aagtttagtt tcccacgttt 120
tcactatttt agcagagatc cagaagggaag aggaggaaaa gcgttctacc ttaagcagct 180
agtcgtgttg tatcgtgcat atttcatttc tggtttggtt ttagatactt ctatgtacat 240
aaactatcaa ggtatttata tatgttcata ttttggcttt agctttcatt tcatatgcac 300
attcggctgt gggctctcctc tgtaaaataa tgagttctat atcattataa gcattaagct 360
tctcttgtaa ttgtatcagt aatattaatc tcttcatttc attagttcca tgactcaacc 420
atcagcagtt aataaagagt ttgttttc

```

<210> 146
 <211> 450
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid g9-3-4

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<400> 146
cagtgatagc aaatcaagta attttgaagg ggcagctgat ggttctcaca atgttggtca 60
gagatacaga gagaggggtc agggtcagtc aaagcgtgga ggtgggaatt tccatggtag 120
gcaaggtggc tctggccgaa taaatgccaa ttatgattga ttgatgagga ggctaaaatg 180
tggaatttag tctttttagt ttgtgatgga tagcaactt accggataat ctttgcttag 240
tctgcatgtc tgggtggtgca gtcttaggtg gtagcttttg acgtggtaaa agagaatttg 300
ttggccaatg tcacacgggt gagctggact acagccgggt tttgccacat ggttttggga 360
aaaattattg tgtttggtgc aacagtaagt gcggcattat gagaactgta attaatttga 420
agaacattaa aatagttgcc cattttctcc

```

<210> 147
<211> 335
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-5-5

<400> 147
ggaaacacag aggagagat gatggtgacg aggagattga cagatacttg ggagttaaga 60
acgggaaact atcaggggaag ctatcaaaga agccaaagag aaaatgagga atatataatt 120
aagctatatt agtccaattt tgacttaatt gaggaatatt ataattaagc tatgttagtt 180
caattttgaa ctttaattagt tctttcatta ttccttggtg ggctgtaatt tgacatttct 240
gcaattctgc tgggatgggt ttgatcttag ggactctatt attttcattt tcttgtgaag 300
atccttgcct cctaataccta atatatacgt gcacc 335

<210> 148
<211> 245
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid g9-6-1 ; homology with LOX lipoxygenase

<400> 148
gtgaaagtgg acttactgga aaaggaattc ccaatagtgt ctcaatttga ggttctacag 60
cacgaatagc tgatatatag cttttgcagt cctcgtaac ctgcagaaat catccgcaac 120
ttaagcagga gtggcaacag atgtgtgtag atctatattt atgtcaatat ttgttttagcc 180
aaattccatt attgttagtg tgtgttttta caataaaatc aatgagcaaa tcccctcatt 240
ttccc 245

<210> 149
<211> 353
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-1-7

<220>

<221> misc_feature

<222> (141)..(141)

<223> n can be any nucleotide

<400> 149
gcattgcggt gcctatccaa agatcctcgg tttagatcaa gcatgagtga cattgttaaa 60
gaactagagc aactttatca acaatctaaa gatgcaggta atactcgcag ccacggtaac 120
aaccggccta gaccacgtag ncgaagtgtt ggtgatgttg gtaataaaca tacttcagtt 180
gcttatccaa gaccgtctgc ttctccctt tatgctaaat aattcaataa atgatatgat 240
gccttttcat gttttgcctt tatgtttttc aagctgaaga acctgcacat ttgcagaatc 300
agctgattgt acagttgttt tggttaatgt attggatgtg tttgtaacct tga 353

<210> 150
<211> 351
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t12-2-1 ; homology with chitinase class 4

<220>

<221> misc_feature

<222> (31)..(349)

<223> n can be any nucleotide

<400> 150

gtaatataat	cgtatattct	ttttaaaata	naatcatgta	tagtggagtc	tnatgcaatt	60
ctcanaacat	atatatgtcg	ncctcactac	cgggggagca	actaatantg	aatatctnng	120
gttatncttt	gattcaactn	ctgggnatna	cttacgtcct	aacatgt nag	attatcccca	180
gtctccagac	ccagtngttg	acganactca	gtataatact	cagcccttcn	ggcaacagtc	240
tgaaggtgga	nctccgncac	atncnatctg	gccattaatg	gctcaa atgg	ttgggccaag	300
accttgggna	naagntgatg	aaagaatggg	ngnttggtnc	gnncgatanc	a	351

<210> 151

<211> 352

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t12-2-18

<220>

<221> misc_feature

<222> (30)..(347)

<223> n can be any nucleotide

<400> 151

gaatagttga	acttattttt	caa atggcan	aaatggactg	acttaacttc	tgtacatnag	60
ctataaagat	gataatcaga	gtgcctnctg	catntcatcc	tcttcttgga	antgcaagaa	120
ctggaagccc	ttcattgatg	tggagtgtaa	acgtggtnct	ataagttant	tctttcgtgt	180
cgtctgatag	tttgaacctg	anganatgaa	gaagagctan	tggnaagat	ctncatgngt	240
caataaanga	gatcttngcc	taaacanatt	cgnggacnag	cgtgaaatgn	tagggaatgt	300
gaatggtaac	gctggntctg	aagaagancc	ntccngnca	agncaanctt	tc	352

<210> 152

<211> 424

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t18-2-5 ; homology with basic PRB-1b [I]

<400> 152

gttcgatgca	acaatgggtg	gtat tttata	acatgcaatt	atgatccacc	tggt aattgg	60
agaggacaac	gtcctacggt	gatcttgaag	agcaacatcc	ctttgattcc	aagttggaac	120
ttccaactga	tgtctagtaa	taacggttta	cgtgatcaaa	taatgaataa	aagctttgtc	180
atgtgttaag	gaaaattaaa	taaaataccag	tactatgcta	tgtgatgtta	tcttcttacc	240
cagtggataa	taatccaatg	gtgtagcaag	gggtggattt	actgttatct	acttgtttta	300
catttgtttt	tggtgggtatt	atggaggtgt	gtatatgtat	gtgttttgat	gaataaacia	360
agtgaacaag	gtgatgagtc	aacagcgatg	taaatttggt	ctttgattaa	tataattact	420
tact						424

<210> 153
 <211> 277
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t18-3-2

<220>

<221> misc_feature

<222> (40)..(265)

<223> n can be any nucleotide

<400> 153
 ttcaaagttt tcgttgccct accaaccacc ggtggatgtn gtcctccng cccacaagtn 60
 aacctgatat ctinttggtt tcctntagta ctagaaaaat ataangtagt attagttitn 120
 cattctttca atgtgtgcag ttacatccct atcttttggg aggatacatc atcctcgnca 180
 tcattggact tgaagtacca ccttaatcng taaccacaat ttttnaactt taaataatat 240
 caaatttata atgacaaata tgttncttct ccacttc 277

<210> 154
 <211> 366
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t18-3-6 ; homology with chloroplast RNA
 binding protein

<220>

<221> misc_feature

<222> (43)..(43)

<223> n can be any nucleotide

<400> 154
 gtactatatg atggtgagac tgggagatct cgtggctatg gtntttgtga gctatgagaa 60
 tagagaacaa ttggagaatg ccttcaaaa tcttaatgga gtggaactgg atggaagggc 120
 aatgcgcatt agcttagcac aagggaagaa acaataagat ggacaagatt cttgtatatt 180
 agttgtaaaa gttgaaaatt taccatcaat agaagaacaa tgttttattc atggattaag 240
 atggctaaag gcttttaact aggacaaagg gagatgtacc atttgaatta catcttccat 300
 aggttgagct ttctatcttt gtttctttac tgcctttcat aatttagaga tatcattggt 360
 cctttc 366

<210> 155
 <211> 282
 <212> DNA
 <213> Nicotiana tabacum

<220>
 <223> plasmid t18-4-18 ; homology with AGP-b (ADP-G
 pyrophosphorylase, small sub.)

<220>

<221> misc_feature

<222> (47)..(265)

<223> n can be any nucleotide

<400> 155

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gtaatcaccg gtttttattt taaacgaata attttttacag tacctantct nctctttag 60
gggtaatgag aantatctag ctacataaaa gtnggatgtg cgctanattt ctacaggnaa 120
agcaaaatna aagtagaana tttctaccgc atggctgttn acccaagatt tgggaggaca 180
accaagtncc aangcctncc ttcanatgat aatgccactg ggaatcaatg ngtccttgat 240
nacngtgana atcccncctc agannaagta tccatctgtt tc 282
```

<210> 156

<211> 376

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-1 ; homology with ubiquitin
conjugating enzyme

<400> 156

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accagaaatt gctcacatgt acaagaccga caggtccaaa tacgagacca ctgctcgtag 60
ctggactcag aaatatgcta tgggataatg gcaaaggcgt caccaggcat gtctgagact 120
ttgtaacagc aatgtcttat tgtgctggtg gtgaatgaat aaattcggcg aaagaactta 180
gtttacttct taatctccct taaagtgggt tgtcaagaga catgtctttt caatttgtga 240
atatctatct gatgactatt agtaagggag aaacttcatg taattttact ttgtttgcca 300
gtttacctga gcctttctct agtttttcca atttgccctg cttgttttgt tctgcgttca 360
aagttgggat tgattc 376
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<210> 157

<211> 364

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-1-3 ; chloroplast genome [I] homology

<220>

<221> misc_feature

<222> (3)..(257)

<223> n can be any nucleotide

<400> 157

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ggnnnncaat ngnnatcgna cnagnnnnn gnannannan tccaaagctn tcnaatnttc 60
tccattactt gtgtggataa gcccnatatn atagagtata taacttcgat catagggatc 120
aatttctagt cgcatagctt cataataatt ctgcaaagct tccgcgctaa tttccttcgg 180
atctgagccg acatcccatc tctgtaatag gtaaatgcct ctttttctcc tgaagttgtc 240
ggaattactc gtaatangat attggctaca attgaaaagg tcttatcaat aaaatttcca 300
tttatccgtg atctaggcat aggtagcaat ccattctaga attcttctca ttacctctca 360
tggg 364
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<210> 158

<211> 184

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t2-6-3

<400> 158

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gagatcagta tacatgaaat ggtatatacg aggacatagt ttcctttagg gaaatgtcaa 60
taggttagag aagaatgggt aaaccgccgg cccgacgggt taattagggt attatataat 120
taggtttatc ttttgacttg tatgttatta gctagtaata atatacttat tcaattttgt 180
gccc                                             184
```

<210> 159

<211> 534

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-1-12 ; homology with SNF-1like kinase,
calcineurin B-like calcium sensors interacting
protein in Arabidopsis

<400> 159

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ccagattaag cttcaggggg agaagaccgg gcgcaaagggt catttatccg ttgcaaccga 60
gatttacgag gtggcacctt cactatacat gggttgcttcg caaggctgga ggagatacct 120
tggaatttca caagttttac aagaacctgt ctaccggatt gaaagacatt gtttggcaac 180
tgggggaagg aggagaggaa gtaaaagatg gtcttgctcg agcttgattt tggagtgtga 240
agtcagtggg ttgccaatgt gaataactct gcaaacagtg tgctagatat tagataatgc 300
tgtgctgtaa aaagaacttt ttataatcag ttgatgtcaa acagagtgtt taagcatcaa 360
cgagtttata atacattggt ttatgtacga ttaaggcacg taaacttaga aaaattaaga 420
ctggttttac attgccattg ttgtcttatt tgggtgacaag atattacgga tcaatacccc 480
ccccaaaata tgtgctttta ttgaactgga agtggttaaca aagtgtgtta tata      534
```

<210> 160

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-2-4 ; homology with a multi-functional
protein -beta oxidation

<220>

<221> misc_feature

<222> (36)..(354)

<223> n can be any nucleotide

<400> 160

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cctcagaaac gcaatggagg tgtcatgttt tggggntgat acaattggat ctgaatacat 60
atactcaaag ctaaaaactt ggcattgagg ctatgggtgat ttttataagc catcaacatt 120
tttgagcag agagctgcaa aaggattgcc cttgggagga tcgtgttgag ctgcataatca 180
tatgatcata tccttgacga agaagcagta attcaagcat gctgaacttg tgntcggaaa 240
taaggcggnn aagtttgtaa attacaatta gttagnagtt ccattaatta taataatttc 300
ctattttttc ccctcaagtt atttgatggg agttgtaact ttggctctac aaantagtgt 360
aatcgtccga gaaagagaat gaaatgtcca aacgcttc      398
```

<210> 161

<211> 398

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-4-7 ; homology with GST (bronze-2 protein homologue)

```
<400> 161
atgggggttg tagatatcat gatcattatt acactagggg catacaaagc acaagagcta 60
gtgttttggt tgaaaatatt ggatgcagag aagacacccc tcttatactc atgggttgact 120
agtttaattg agctgcctat agttaaggaa atcactcccc cttatgacaa ggtgctttca 180
tttcttcata ttctcaaaga catcgtcttc aaagctccgg ccaattgacc ttttttgtgt 240
ttatgtccat ctctgtctct tttgtctact ccactcatta attgtactca atgtcttctc 300
ctctgtattg tataatataa taaggcttat ggccatttgg attccaaagg ctacttatat 360
tttgagtgtg tgttttatac aacagaaagt tatcatcc 398
```

<210> 162

<211> 397

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-4-8

<220>

<221> misc_feature

<222> (207)..(351)

<223> n can be any nucleotide

```
<400> 162
ccatgagaat gacgaaagca aggcagaaaa gaaaggagaa catgataaga agaatttgat 60
gaagaagggt gctgggaaaa tagggaaaaa attattgcat agtcaccta agaagcagca 120
tgaggaaggc tatgaaggag aagaggagga agaaggagaa gaaggagaag aagtagaagg 180
agaagaagta gaagtagaag aagcgggaga aggtgggttt gaatttgaac tcnactttga 240
tttttgatta agctttatgt atcactccag ctgtgtacgt tggatattct ccttattggt 300
ttaaaaanac ataagtatgt ttcgaggata tctctgaata ggtggcttgg natttgtaac 360
ctgtggtacc atatatatga gcgtcttcta gtttttt 397
```

<210> 163

<211> 304

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-5-4

```
<400> 163
acgaatgtgt ttagtactcg gggcaactcc aagtcttgag atccaagtgt tgcagcctct 60
ttagccttta aaagggtggat gctgccattt taacctgggt ttagtttgga tgaaatttga 120
attcaaagct tttgtttgta gcttaggttc ctgtattagt tttcagttga aatagttgtg 180
tactctttca tctttgagca atgaaataaa agtcctcaaa tctgcttctt ttagaactaa 240
aaaagatctc ttataatttc ccctgtaaaa tcttgcaatt gattatcaac cgtcctctct 300
tatt 304
```

<210> 164

<211> 307

<212> DNA

<213> Nicotiana tabacum

<220>

<223> plasmid t7-5-5 ; Arabidopsis genomic homology

<400> 164
gagctgataa atggaaaagc agcagtaatt ggtttcctat tgctgttga ttttgaactc 60
ttgaccggtg aagggtcttct caaagggaaca ggggttcttg atttcattta ctcagtttca 120
gatgctttca aataaaacca ttccgctata tacttactcc ccctccctct ttttcccctt 180
ttcctatatt tctgacaaat ttgcatttgt ttaaataaac aaaaacaaag aatgttgatc 240
tttttatatg ttgtccaatt atatggatta gtgaattata gaccattgaa ttccagctga 300
agaatgt 307

<210> 165
<211> 192
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-6-4

<400> 165
aacaataatt ggctataaca ttcaaaaata tttgaaacaa gcgatgccgt tacgtagagg 60
ttttacggtg aaagtagaag ctggtataag ccatcaatgg aaaaactgga taattcgatc 120
ttatataaat ttcctaattg attgagacta atatatacag tcggatttta aggttttggc 180
cgaccggatt ac 192

<210> 166
<211> 232
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid a1-1-17

<220>

<221> misc_feature

<222> (71)..(176)

<223> n can be any nucleotide

<400> 166
agagaaagat ctgtacgtaa ttgccaaaaa cgatgagtgt ttggatgtca tgctttatatt 60
tggtgtttat nggtgtctcc cttttgtatt tgaagttttc ccagaaaatt agcaaagaat 120
aagcttcaaa ctggttttac attttnggtt caaaatgtca natcaanaa tctgtnatgc 180
tattggtgtt gtatgtaata attagatccc attttcttcc tctttccttt at 232

<210> 167
<211> 489
<212> DNA
<213> Nicotiana tabacum

<220>
<223> plasmid t7-1-14

<400> 167
ccctcagaac gcaagtagca acagtttctt caattgctat tgcctatctc tgaactcgaa 60
ttcattactt gtaagatctg ctaataatca ctatgttttt ctgcagtgga ggtgtcatgt 120
tttgggctga tacaattgga tctgaatata tataactcaa gctaaaaact tggcatgagg 180
cctatgggtg tttctataag ccatcaacat ttttggagca gagagctgca aaaggattgc 240
ccttgggagg atcgtgttga gctgcataatc atatgatcat atccttgcag aagaagcagt 300
aattcaagca tgctgaactt gtgctcggaa ataaggcggg aaagtgtgtt aattacaatt 360
agttagaagt tccattaatt ataataattt cctatttttt cccctcaagt tatttgatgg 420
tagttgtaac tttggctcta caaactagtg taatcgtccg agaaagagaa tgaaatgtcc 480

aaacgcttc

489

<210> 168

<211> 877

<212> DNA

<213> Nicotiana tabacum

<220>

<221> CDS

<222> (31)..(588)

<400> 168

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aacttcctct cttaaagttc atttactttg atg gag aat tat caa cat att ctt 54
                               Met Glu Asn Tyr Gln His Ile Leu
                               1                               5

cca aat tac tct tct tca tcg tct gat cag ttg tca gta atg aat atg 102
Pro Asn Tyr Ser Ser Ser Ser Ser Asp Gln Leu Ser Val Met Asn Met
      10                               15                               20

atg aac aac aat tct caa gca aaa aca act gaa tta acc caa gac aat 150
Met Asn Asn Asn Ser Gln Ala Lys Thr Thr Glu Leu Thr Gln Asp Asn
      25                               30                               35                               40

aag aaa tcg agc ggg ttt ttg ggg cta atg gca agc atg gaa gct cct 198
Lys Lys Ser Ser Gly Phe Leu Gly Leu Met Ala Ser Met Glu Ala Pro
      45                               50                               55

agc tcc agt gtt gtt act gat cac cca aat agc att ccg tat aac cct 246
Ser Ser Ser Val Val Thr Asp His Pro Asn Ser Ile Pro Tyr Asn Pro
      60                               65                               70

aat gat cag aac gag gtg aga tcg ggt aag aag aat aaa gtt gag aag 294
Asn Asp Gln Asn Glu Val Arg Ser Gly Lys Lys Asn Lys Val Glu Lys
      75                               80                               85

aag att aaa aaa ccg aga tat gct ttt caa aca agg agt caa gtg gat 342
Lys Ile Lys Lys Pro Arg Tyr Ala Phe Gln Thr Arg Ser Gln Val Asp
      90                               95                               100

att ttg gat gat ggt tat aga tgg agg aaa tac gga cag aag gct gtc 390
Ile Leu Asp Asp Gly Tyr Arg Trp Arg Lys Tyr Gly Gln Lys Ala Val
      105                               110                               115                               120

aag aac aac aga ttc cca aga agc tac tac cga tgc acg cat caa gga 438
Lys Asn Asn Arg Phe Pro Arg Ser Tyr Tyr Arg Cys Thr His Gln Gly
      125                               130                               135

tgt aac gtg aag aaa caa gta caa agg ctg tca aag gat gaa gga gta 486
Cys Asn Val Lys Lys Gln Val Gln Arg Leu Ser Lys Asp Glu Gly Val
      140                               145                               150

gta gta act act tat gaa ggc atg cat tca cat ccc att gag aag tcc 534
Val Val Thr Thr Tyr Glu Gly Met His Ser His Pro Ile Glu Lys Ser
      155                               160                               165

aca gat aac ttt gag cac att ttg act cag atg caa atc tat gct tcc 582
Thr Asp Asn Phe Glu His Ile Leu Thr Gln Met Gln Ile Tyr Ala Ser
      170                               175                               180

ttt tga aacgtccatc acttcaatgc ctaaggcatg acactcaatt agtcacttgt 638
Phe
185
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aaaatagtagtac tacagtatat tgtgtacatg cgttttgaac ctagatgcta tatttttgaaa 698
 taaaacgcaa cttcattagg gaatttaatt tgatcattgt acaactaaaa gtaatgttgc 758
 tattttttttg tttttatcac tttgtttttg ccggagccat gctcttcatt ttaactcttt 818
 tcttttagaa ttaacaaata atttcatgtt ggagaaagat acgtgccaaa aaaaaaaaaa 877

<210> 169
 <211> 185
 <212> PRT
 <213> Nicotiana tabacum

<400> 169
 Met Glu Asn Tyr Gln His Ile Leu Pro Asn Tyr Ser Ser Ser Ser Ser
 1 5 10 15
 Asp Gln Leu Ser Val Met Asn Met Met Asn Asn Asn Ser Gln Ala Lys
 20 25 30
 Thr Thr Glu Leu Thr Gln Asp Asn Lys Lys Ser Ser Gly Phe Leu Gly
 35 40 45
 Leu Met Ala Ser Met Glu Ala Pro Ser Ser Ser Val Val Thr Asp His
 50 55 60
 Pro Asn Ser Ile Pro Tyr Asn Pro Asn Asp Gln Asn Glu Val Arg Ser
 65 70 75 80
 Gly Lys Lys Asn Lys Val Glu Lys Lys Ile Lys Lys Pro Arg Tyr Ala
 85 90 95
 Phe Gln Thr Arg Ser Gln Val Asp Ile Leu Asp Asp Gly Tyr Arg Trp
 100 105 110
 Arg Lys Tyr Gly Gln Lys Ala Val Lys Asn Asn Arg Phe Pro Arg Ser
 115 120 125
 Tyr Tyr Arg Cys Thr His Gln Gly Cys Asn Val Lys Lys Gln Val Gln
 130 135 140
 Arg Leu Ser Lys Asp Glu Gly Val Val Val Thr Thr Tyr Glu Gly Met
 145 150 155 160
 His Ser His Pro Ile Glu Lys Ser Thr Asp Asn Phe Glu His Ile Leu
 165 170 175
 Thr Gln Met Gln Ile Tyr Ala Ser Phe
 180 185

<210> 170
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer EVVRA
 26

<400> 170
 cgcgcagact ctcgagggcc c

21

<210> 171
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: primer EVVRA
 28

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<400> 171
ctcagatcta gaagttcatt tactttgatg 30

<210> 172
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
29

<400> 172
attgaagatc tagacgtttc aactcgaggc 30

<210> 173
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: primer EVVRA
30

<400> 173
ccctcgagcc accgtactcg tcaat 25

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